

# **Interstate 110 High-Occupancy Toll Lanes Flyover Project Draft Initial Study with Proposed Mitigated Negative Declaration (MND)/ Environmental Assessment (IS/EA)**

**Los Angeles County, California  
District 7-LA-110 PM 20.10/20.92  
EA: 07-27800/EFIS #: 0700000537  
SCH No. 2013021002**



**Prepared by the California Department of Transportation**

**JANUARY 2016**

**This environmental review, consultation, and any other action required with applicable federal laws for this project is being, or has been, carried out by Caltrans under its assumption of responsibility pursuant to 23 U.S.C. 327.**



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## **I-110 High-Occupancy Toll Lane Flyover Project**

Construct an elevated off-ramp structure on the Northbound (NB) I-110 between 30<sup>th</sup> Street and Figueroa Street Overcrossing (OC) in the City of Los Angeles. The proposed structure would bypass the bottleneck intersections at Flower Street (St.) and Adams Boulevard (Blvd.) and NB I-110 High-Occupancy Toll (HOT) off-ramp to Adams Blvd., connecting the HOT lane traffic to Figueroa St.

### **Initial Study with Proposed Mitigated Negative Declaration/Environmental Assessment**

Submitted Pursuant to: (State) Division 13, California Public Resources Code  
(Federal) 42 USC 4332(2)(C)

California Department of Transportation  
and  
The Los Angeles County Metropolitan Transportation Authority

Responsible Agencies:  
California Transportation Commission

Jan 11, 2016  
Date of Approval

  
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## **Proposed Mitigated Negative Declaration**

Pursuant to: Division 13, Public Resources Code

### ***Project Description***

The California Department of Transportation (Caltrans) in cooperation with The Los Angeles County Metropolitan Transportation Authority (Metro) proposes to construct an elevated off-ramp structure on the Northbound Interstate 110 between 30<sup>th</sup> Street and Figueroa Street Overcrossing in the City of Los Angeles. The proposed structure would bypass the bottleneck intersections at Flower Street and Adams Boulevard and NB I-110 High- Occupancy Toll (HOT) off-ramp to Adams Blvd., connecting the HOT lane traffic to Figueroa Street.

### ***Determination***

This Proposed Mitigated Negative Declaration is included to give notice to interested agencies and the public that it is Caltrans' intent to adopt a Mitigated Negative Declaration for this project. This does not mean that Caltrans' decision on the project is final. This Mitigated Negative Declaration is subject to change based on comments received from interested agencies and the public.

Caltrans has prepared an Initial Study for this project and, pending public review, expects to determine from this study that the proposed project would not have a significant effect on the environment for the following reasons.

The proposed project would have no effect on: coastal zone, wild & scenic rivers, farmlands/timberlands, relocations, wetlands or other waters, plant species, threatened or endangered species, hydrology and floodplain.

In addition, the proposed project would have no significant effect on: parks & recreational facilities, growth, environmental justice, relocations & real acquisition (businesses/housing) displacements, visual/aesthetics, paleontology, ground vibration, and cumulative impacts.

Finally, the proposed project would have no significantly adverse effect on land use, community character & cohesion, traffic & transportation/pedestrian & bicycle facilities, cultural resources, water quality & stormwater run-off, geology, soils, seismicity & topography, hazardous waste, air quality, noise, natural communities, and animal species because the appropriate avoidance, minimization, and/or mitigation measures would reduce potential effects to insignificance.

Mitigation Measures include: Consistency (CONS-1) If the No-Build is selected Caltrans would request that the responsible party of the plan or program to modify the inconsistent policy, goal, and or objective. Pedestrian and Bicycle mitigation, which would re-design Figueroa Way to encourage pedestrian and bicycle use. Cultural resources mitigations, which would create a historical preservation plan/exhibits, and design a historically sensitive streetscape on Figueroa Way.

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Ronald Kosinski  
District Deputy Director of Environmental Planning  
District 7 California Department of Transportation

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Date

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## Summary

The California Department of Transportation (Caltrans) is the lead agency under the California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA). The lead agency is defined as the public agency that has the principal responsibility of approving a project that is subject to CEQA and NEPA. The lead agency is responsible for determining the appropriate environmental document, as well as its preparation.

California participated in the “Surface Transportation Project Delivery Pilot Program” (Pilot Program) pursuant to 23 USC 327, for more than five years, beginning July 1, 2007 and ending September 30, 2012. MAP-21 (P.L. 112-141), signed by President Obama on July 6<sup>th</sup>, 2012, amended 23 USC 327 to establish a revised and permanent Surface Transportation Project Delivery Program. As a result, the Department entered into a memorandum of understanding pursuant to 23 USC 327 (NEPA Assignment MOU) with FHWA. The NEPA Assignment MOU became effective October 1, 2012 and terminates eighteen months from the effective date of FHWA regulations developed to clarify amendments to 23 USC 327 or on January 1, 2017. The NEPA Assignment MOU incorporates by reference the terms and conditions of the Pilot Program MOU. In summary, the Department continues to assume FHWA responsibilities under NEPA and other federal environmental laws in the same manner as was assigned under the Pilot Program, with minor changes. With NEPA Assignment, FHWA assigned and the Department assumed all of the United States Department of Transportation (USDOT) Secretary's responsibilities under NEPA.

The California Department of Transportation (Caltrans), in cooperation with The Los Angeles Metropolitan Transportation Authority (Metro), proposes to construct an elevated off-ramp structure on the Northbound (NB) I-110 between 30<sup>th</sup> Street (St.) and Figueroa Street Overcrossing (OC) in the City of Los Angeles. The proposed structure would bypass the bottleneck intersections at Flower St. and Adams Boulevard (Blvd.) and NB I-110 High-Occupancy Toll (HOT) off-ramp to Adams Blvd., connecting the HOT lane traffic to Figueroa St. All new structures will be within State right of way; minimal right of way acquisition will be acquired for maintenance, ingress/egress, access control, and setback purposes as well as emergency services access.

The current termination of the northbound I-110 HOT lanes at Adams Blvd. presents a particularly challenging bottleneck, as approximately half of the HOT lane traffic exits here to access downtown Los Angeles via Figueroa St. The existing NB HOT lane at Adams Blvd. is a concentrated accident location, which is a safety concern. According to the Traffic Accident Surveillance and Analysis System (TASAS), and the Transportation Systems Network (TSN) reports, the accident rate at this location between October 1, 2010 and September 30, 2013 is 0.23, slightly higher than the average accident rate, which is 0.21. Accident rates are expressed as number of accidents fatal plus injury divided by million vehicle miles. The accident rate considers driving conditions, and if there were any injuries or fatalities. Queuing and congestion is currently experienced on both the off-ramp and the HOT lanes themselves. Increasing capacity at this location is the key to ensuring the HOT lanes can manage delay and serve additional users.

The purpose of the project is to alleviate congestion and reduce the queuing and delay on the managed HOT lanes, Adams Blvd. off-ramp, and associated nearby intersections. The project would improve traffic flow in a congested area of downtown Los Angeles by removing traffic from congested and confusing intersections. Table 1 summarizes the potential impacts from each alternative.

**Table 1: Summary of Potential Impacts from Alternatives**

Resource Area	Potential Impacts Alternative 1-No Build	Potential Impacts Alternative 2: Build	Avoidance, Minimization, and/or Mitigation Measures
Land Use	No Impact	No Impact	None
Consistency with State, Regional, and Local Plans and Programs	Not consistent with several objectives, policies, and goals	Consistent with objectives, policies, and goals with the incorporation of mitigation measure re-design Figueroa Way	<b>Mitigation:</b> Caltrans would request that the inconsistent policy, goal, and or objective be modified. If this does not happen, the inconsistent policy, goal, and or objective would be impacted. <b>Mitigation:</b> Re-design Figueroa Way to encourage pedestrian and bicycle use.
Parks and Recreational Facilities	No Impact	No Impact	None
Growth	No Impact	No Impact	None
Community Character and Cohesion	No Impact	Potential traffic circulation issues during construction, impacts on police/fire department response times, and impacts on pedestrians / bicyclists using Figueroa Way to access the surrounding community.  The Metro bus stop currently located on Figueroa Way will impact the Metro Silver Line bus and OCTA bus lines 701 and 721.	<b>Minimization:</b> A TMP will be implemented to minimize direct and cumulative construction impacts on the community. The TMP shall include the following implementation plans: public information, motorist information, incident management, and traffic management during construction.  <b>Mitigation:</b> Re-design Figueroa Way to encourage pedestrian and bicycle use.  <b>Minimization:</b> The Metro Silver Line bus stop on Figueroa Way will be consolidated.
Environmental Justice	No Impact	No Impact	None
Utilities Impacts/Relocations & Emergency Services	No Impact	Potential impacts to police and fire response times during construction.	<b>Minimization:</b> A TMP will be implemented to minimize direct and cumulative construction impacts on the community. The TMP shall include the following implementation plans: public information, motorist information, incident management, and traffic management during construction.

<b>Resource Area</b>	<b>Potential Impacts Alternative: 1-No Build</b>	<b>Potential Impacts Alternative 2: Build</b>	<b>Avoidance, Minimization, and/or Mitigation Measures</b>
Traffic and Transportation/ Pedestrian and Bicycle Facilities	No Impact	<p>Potential traffic circulation issues during construction.</p> <p>The Metro bus stop currently located on Figueroa Way will impact the Metro Silver Line bus and OCTA bus lines 701 and 721.</p> <p>Temporary impacts on pedestrians/bicyclists using Figueroa Way to access the surrounding community is anticipated during construction.</p>	<p><b>Minimization:</b> A TMP will be implemented to minimize direct and cumulative construction impacts on the community. The TMP shall include the following implementation plans: public information, motorist information, incident management, and traffic management during construction.</p> <p><b>Minimization:</b> The Metro Silver Line bus stop on Figueroa Way will be consolidated.</p> <p><b>Mitigation:</b> Re-design Figueroa Way to encourage pedestrian and bicycle use.</p>
Relocations and Real Acquisition (Business/Housing Displacements)	No Impact	No Impact	None
Visual/Aesthetics Impacts	No Impact	No Impact	None

Resource Area	Potential Impacts Alternative: 1-No Build	Potential Impacts Alternative 2: Build	Avoidance, Minimization, and/or Mitigation Measures
Cultural Resources	No Impact	Potential to indirectly affect two historic properties (St. John's Cathedral Church and Parish House). These effects are adverse because the impacts will indirectly alter the integrity of the historic property's setting.	<p><b>Mitigation:</b> Develop an interpretive program that summarizes the history of West Adams, including street signage that would be compatible with the My Figueroa Project.</p> <p><b>Mitigation:</b> Design and fabricate a mobile exhibit that summarizes the history of West Adams, including St. John's Episcopal Church.</p> <p><b>Mitigation:</b> Design and implement a historically sensitive and pedestrian friendly streetscape on Figueroa Way that includes landscaping and lighting that is consistent with the surrounding community.</p> <p><b>Mitigation:</b> Prepare a Historic Structures Report/Preservation Plan to guide future preservation of the St. John's Episcopal Church. A Historic Structures Report/Preservation Plan provide a valuable foundation for the rehabilitation, restoration, stabilization or reconstruction of a historic building.</p> <p><b>Avoidance:</b> If cultural materials are discovered during construction, all earth-moving activity within and around the immediate discovery area will be diverted until a qualified archaeologist can assess the nature and significance of the find.</p>
Water Quality and Storm Water Runoff	No Impact	Potential dirt, dust, and concrete waste may impact water quality/stormwater runoff.	<p><b>Minimization:</b> Storm drain inlet protection will be deployed the roadway should be swept regularly to minimize dirt and dust.</p> <p><b>Minimization:</b> Concrete wastes will be managed through the use of concrete washout facilities.</p> <p><b>Minimization:</b> Temporary silt fence shall be utilized to protect existing vegetation.</p> <p><b>Minimization:</b> Various waste management, materials handling, and other housekeeping BMPs will be used.</p> <p><b>Minimization:</b> Construction sequencing will be scheduled.</p> <p><b>Minimization:</b> A Water Pollution Control Plan will be prepared.</p> <p><b>Minimization:</b> Comply with the provisions of the National Pollutant Discharge Elimination System (NPDES) General Permit requirements.</p> <p><b>Minimization:</b> Comply with the provisions identified in the NPDES Statewide Storm Water Permit Waste Discharge Requirements.</p>
Geology, Soils, Seismicity and Topography	No Impact	Groundwater may be impacted depending on the depth of bents.	<p><b>Minimization:</b> If the build alternative is selected, a site-specific geotechnical investigation shall be conducted prior to the detailed design phase.</p>
Paleontology	No Impact	Paleontological resources may be discovered during construction.	<p><b>Avoidance:</b> If during construction paleontological resources are discovered, a qualified paleontologist will need to recover them. Construction work will be halted or diverted.</p>

Resource Area	Potential Impacts Alternative: 1-No Build	Potential Impacts Alternative 2: Build	Avoidance, Minimization, and/or Mitigation Measures
Hazardous Waste	No Impact	Potential impacts include disturbance of asbestos-containing material, worker exposure to lead during construction, Treated Wood Waste (TWW), and construction debris.	<p><b>Minimization:</b> An Asbestos Containing Material (ACM) Survey will be performed by a certified Asbestos Consultant (CAC) and Certified Lead Inspector (CLI).</p> <p><b>Minimization:</b> The development of a project-specific Lead Compliance Plan (LCP) and training program to ensure proper health and safety measures are implemented and complied prior to start of the removal operation will be required.</p> <p><b>Minimization:</b> A TWW disposal health and safety plan will be prepared.</p> <p><b>Minimization:</b> A Debris Containment and Disposal Work Plan will be prepared.</p> <p><b>Minimization:</b> Removal of yellow/white thermoplastic traffic stripes and pavement marking material shall be properly collected, stored, transported, and disposed of in accordance with State and Federal guidelines.</p> <p><b>Minimization:</b> If the proposed Build Alternative is selected, then a Phase I Environmental Site Assessment (ESA) and a Phase II Site Investigation (SI) will be prepared.</p> <p><b>Avoidance:</b> A comprehensive ADL site investigation will be performed in Plans Specifications and Estimates phase.</p>
Air Quality	Air quality will worsen if this alternative is chosen.	<p>Potential fugitive dust emissions, construction equipment, dust, vehicles idling because of traffic congestion during construction, windblown particulates, disturbance of naturally occurring asbestos.</p> <p>Operational impacts are not anticipated. Air quality is likely to improve due to the improved circulation of traffic.</p>	<p><b>Minimization:</b> Compliance with Caltrans' Standard Specifications in Section 14 (2010) will be required.</p> <p><b>Minimization:</b> Section 14-9.01 specifically requires compliance with all applicable laws and regulations related to air quality.</p> <p><b>Minimization:</b> If dust palliative materials other than water are to be used, material specifications are contained in Section 18.</p> <p><b>Minimization:</b> Apply water or dust palliative to the site and equipment as frequently as necessary to control fugitive dust emissions.</p> <p><b>Minimization:</b> Spread soil binder on any unpaved roads used for construction purposes, and all project construction parking areas.</p> <p><b>Minimization:</b> Wash off trucks as they leave the R/W as necessary to control fugitive dust emissions.</p> <p><b>Minimization:</b> Properly tune and maintain construction equipment and vehicles.</p> <p><b>Minimization:</b> Develop a dust control plan.</p> <p><b>Minimization:</b> Locate equipment and materials storage sites at least 500 feet from the sensitive receptors.</p> <p><b>Minimization:</b> Establish environmentally sensitive areas (ESAs) or their equivalent at least 500 feet away from sensitive air receptors within which construction activities when feasible.</p> <p><b>Minimization:</b> Use track-out reduction measures such as gravel pads at project access points to minimize dust and mud deposits on roads affected by construction traffic.</p> <p><b>Minimization:</b> Cover all transported loads of soils and wet materials prior to transport.</p>



Resource Area	Potential Impacts Alternative: 1-No Build	Potential Impacts Alternative 2: Build	Avoidance, Minimization, and/or Mitigation Measures
			<p><b>Minimization:</b> Promptly and regularly remove dust and mud that are deposited on paved public roads due to construction activity.</p> <p><b>Minimization:</b> Route and schedule construction traffic to avoid peak travel times as much as possible.</p> <p><b>Minimization:</b> Install mulch or plant vegetation as soon as practical after grading to reduce windblown particulates in the area.</p> <p><b>Minimization:</b> While unlikely, if naturally occurring asbestos, serpentine, or ultramafic rock is discovered during grading operations, Section 93105, Title 17 of the California Code of Regulations requires notification to the SCAQMD by the next business day and implementation of specific measures within 24-hours to stabilize unpaved areas.</p>
Noise and Vibration	No Impact	<p>Potential construction noise from construction equipment, pile driving activities, and ground vibration.</p> <p>No operational impacts are anticipated; noise levels will be similar to current condition.</p>	<p><b>Avoidance:</b> Equipment Noise Control will be applied to revising old equipment and designing new equipment to meet acceptable noise levels.</p> <p><b>Minimization:</b> In-Use Noise Control where existing equipment is not permitted to produce noise levels in excess of specified limits.</p> <p><b>Minimization:</b> Site Restrictions is an attempt to achieve noise reduction through modifying the time, place, or method of operation of a particular source. Site restrictions should be applied to achieve noise reduction through different methods, resulting in an immediate reduction of noise emitted to the community without requiring any modification to the source noise emissions.</p> <p><b>Minimization:</b> Shielding with barriers should be implemented at an early stage of a project to reduce construction equipment noise. The placement of barriers must be carefully considered to reduce limitation of site access. Barriers may be natural or man-made, such as excess land fill used as a temporary berm strategically placed to act as a barrier.</p> <p><b>Minimization:</b> Personal Training of operators and supervisors is needed to become more aware of the construction site noise problems. Educating contractors and their employees to be sensitive to noise impact problems and noise control methods.</p> <p><b>Minimization:</b> Pile driving can be the most significant source of vibration at construction sites. The principal means of reducing vibration from impact pile driving that will most likely be used in this case will be cast-in-place or auger cast piles.</p>
Natural Communities	No Impact	No Impact	None
Animal Species	No Impact	Potential impacts to birds during bird nesting season.	<p><b>Avoidance:</b> Avoid construction during bird nesting season, or at a minimum grub the vegetation outside the bird nesting season (March 1<sup>st</sup> through September 1<sup>st</sup>). If this cannot be done, then a biological survey for nesting birds will be required.</p>

<b>Resource Area</b>	<b>Potential Impacts Alternative 1-No Build</b>	<b>Potential Impacts Alternative 2: Build</b>	<b>Avoidance, Minimization, and/or Mitigation Measures</b>
Cumulative Impacts	No Impact	No Impact	None

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# **Chapter 1 Proposed Project**

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## **1.1 Introduction**

The California Department of Transportation (Caltrans) is the lead agency under the California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA). The lead agency is defined as the public agency that has the principal responsibility of approving a project that is subject to CEQA and NEPA. The lead agency is responsible for determining the appropriate environmental document, as well as its preparation.

California participated in the “Surface Transportation Project Delivery Pilot Program” (Pilot Program) pursuant to 23 USC 327, for more than five years, beginning July 1, 2007 and ending September 30, 2012. MAP-21 (P.L. 112-141), signed by President Obama on July 6<sup>th</sup>, 2012, amended 23 USC 327 to establish a revised and permanent Surface Transportation Project Delivery Program. As a result, the Department entered into a memorandum of understanding pursuant to 23 USC 327 (NEPA Assignment MOU) with FHWA. The NEPA Assignment MOU became effective October 1, 2012 and terminates eighteen months from the effective date of FHWA regulations developed to clarify amendments to 23 USC 327 or on January 1, 2017. The NEPA Assignment MOU incorporates by reference the terms and conditions of the Pilot Program MOU. In summary, the Department continues to assume FHWA responsibilities under NEPA and other federal environmental laws in the same manner as was assigned under the Pilot Program, with minor changes. With NEPA Assignment, FHWA assigned and the Department assumed all of the United States Department of Transportation (USDOT) Secretary's responsibilities under NEPA.

Route 110 consists of State Route 110 (SR-110) and Interstate 110 (I-110). The entire length of I-110 (which ends at I-10), as well as SR-110 south of the four level interchange with US-101, is the Harbor Freeway, and SR-110 north from US-101 to Pasadena is the historic Arroyo Seco Parkway, the first freeway in the western United States. I-110 passes through or is adjacent to the cities of Los Angeles, Gardena, and Carson, and the unincorporated communities of Willowbrook and West Compton, and is a north-south transportation corridor connecting the South Bay cities with Los Angeles’ central business district. The majority of I-110 runs through the Harbor Gateway, a north-south strip of land annexed by the City of Los Angeles that connects the City to the port complex of Los Angeles and Long Beach, as well as to the communities of San Pedro and Wilmington.

The Harbor Transitway is an 11-mile shared-use bus corridor (transitway) and high-occupancy toll roadway that runs in the median of Interstate 110. The Metro Silver Line bus rapid transit line runs on the Harbor Transitway from Harbor Gateway Transit Center to Downtown Los Angeles and continues to El Monte Bus Station. Other Metro bus and municipal bus routes also operate on the Harbor Transitway and they include: Metro Express 442, 450, 460 and 550, Torrance Transit: 4, Gardena Transit: 1X and Orange County Transportation Authority (OCTA): 701, 721. Busway bus lines originate from Downtown Los Angeles and El Monte, with final destinations in Anaheim, Buena Park, Artesia, Fullerton, Gardena, Hawthorne, Huntington Beach, San Pedro, and Torrance.

### *I-110 Flyover Project*

There are six transit stations on the main section of the Harbor Transitway: 37th St. Station, Slauson Station, Manchester Station, Harbor Freeway/I-105 Station, Rosecrans Station and Harbor Gateway Transit Center to one side of the I-110. All of these 6 stations are branded as Metro Silver Line stations. There are two additional stations on the I-110 to the south of the Transitway's terminus: Carson Station and Pacific Coast Highway station. Carson is a station on the Harbor Transitway at its undercrossing of Carson St. in the City of Carson. It is one of two that are outside of a dedicated transitway, the other being Pacific Coast Highway station. North of this station, transitway services use Torrance Blvd. and Figueroa St. to the Artesia Transit Center. Traveling south on the I-110, the next station is Pacific Coast Highway, which is located at 1424 Figueroa St. Both of these stations are served by Metro Express Line 450. These stations are not considered part of the Harbor Transitway stations nor are they Metro Silver Line stations. Carson and Pacific Coast Highway stations are considered freeway stations.

In 2010, the Harbor Transitway underwent a conversion from High-Occupancy Vehicle (HOV) lanes to High-Occupancy Toll (HOT) lanes, known locally as the I-110 Express Lanes. Motorists (both single-occupant and high-occupancy vehicles) may only access the lanes if they possess a FasTrak transponder and pay the appropriate tolls. Transit buses may also utilize the HOT lanes. The HOT Lanes operate by utilizing principles of dynamic pricing. Dynamic pricing provides the opportunity to "sell back" some of the additional capacity in the high-occupancy lanes to single occupant vehicles. The toll rate reflects traffic conditions at the time, aiming to maintain a 45 mile-per-hour minimum travel speed in the HOT lanes. Adams Blvd. is the terminus of the HOT lane facility, approximately one half mile south of downtown Los Angeles. In order to complete their trip, HOT lane users must navigate two congested signalized intersections (the I-110 off-ramp/Adams Blvd. and Adams Blvd./Flower St.) in order to reach the main downtown thoroughfare (Figueroa St.). This results in queuing on the off-ramp and HOT lane mainline. Bypassing these bottleneck intersections would eliminate or alleviate queuing and improve the operation and safety of the HOT lane facility and off-ramps.



## **1.2 Purpose and Need**

### **Purpose**

The purpose of the project is to alleviate congestion and reduce the queuing and delay on the managed HOT lanes, Adams Blvd. off-ramp, and associated nearby intersections. The project would improve traffic flow in a congested area of downtown Los Angeles by removing traffic from congested and confusing intersections.

### **Need**

The current termination of the northbound I-110 HOT lanes at Adams Blvd. presents a particularly challenging bottleneck, as approximately half of the HOT lane traffic exits here to access downtown Los Angeles via Figueroa St., which affects the nearby intersections of Flower St. & Adams Blvd. and Northbound I-110 HOT off-ramp to Adams Blvd. The existing Northbound HOT lane at Adams Blvd. is a concentrated accident location, which is a safety concern. According to the Traffic Accident Surveillance and Analysis System (TASAS), and the Transportation Systems Network (TSN) reports, the accident rate at this location between October 1, 2010 and September 30, 2013 is 0.23, slightly higher than the average accident rate, which is 0.21. Accident rates are expressed as number of accidents fatal plus injury divided by million vehicle miles. The accident rate considers driving conditions, and if there were any injuries or fatalities. The vehicles currently existing NB HOT lane off-ramp approach queues onto the mainline which potentially causes an increase in rear end collision type of accidents.

The Traffic Study Report Addendum (April 2015) detailed intersection capacity and operation analyses in order to analyze the existing condition. Five key intersections were evaluated in the vicinity of the project site for weekday AM (7:30 to 9:30AM) and PM (5:00 to 7:00 PM) peak hours. All study intersections were analyzed using the Highway Capacity Manual (HCM) as well as the Transportation Research Board, 2000 methodology, which is the Caltrans and Federal Highway Administration (FHWA) adopted analysis methodology. Two of the analyzed key intersections and the existing northbound off-ramps at Adams Blvd. are currently operating at unacceptable levels of service during analyzed peak hours. Per HCM guidance, unacceptable Level of Service (LOS) "F", can be described as the average delay per vehicle in seconds at a signalized intersection is more than 80 seconds, and for un-signalized the delay is more than 50 seconds. Queuing and congestion is currently experienced on both the off-ramp and the HOT lanes themselves. Increasing capacity at this location is the key to ensuring the HOT lanes can manage delay and serve additional users.

### **1.3 Independent Utility and Logical Termini**

Independent utility is a term used to describe a project that would be usable and be a reasonable expenditure even if no additional transportation improvements in the area are made. Once built, the project could stand on its own and requires no other projects to be implemented. The proposed project would help to lessen the congestion in this area without the implementation of any other nearby project.

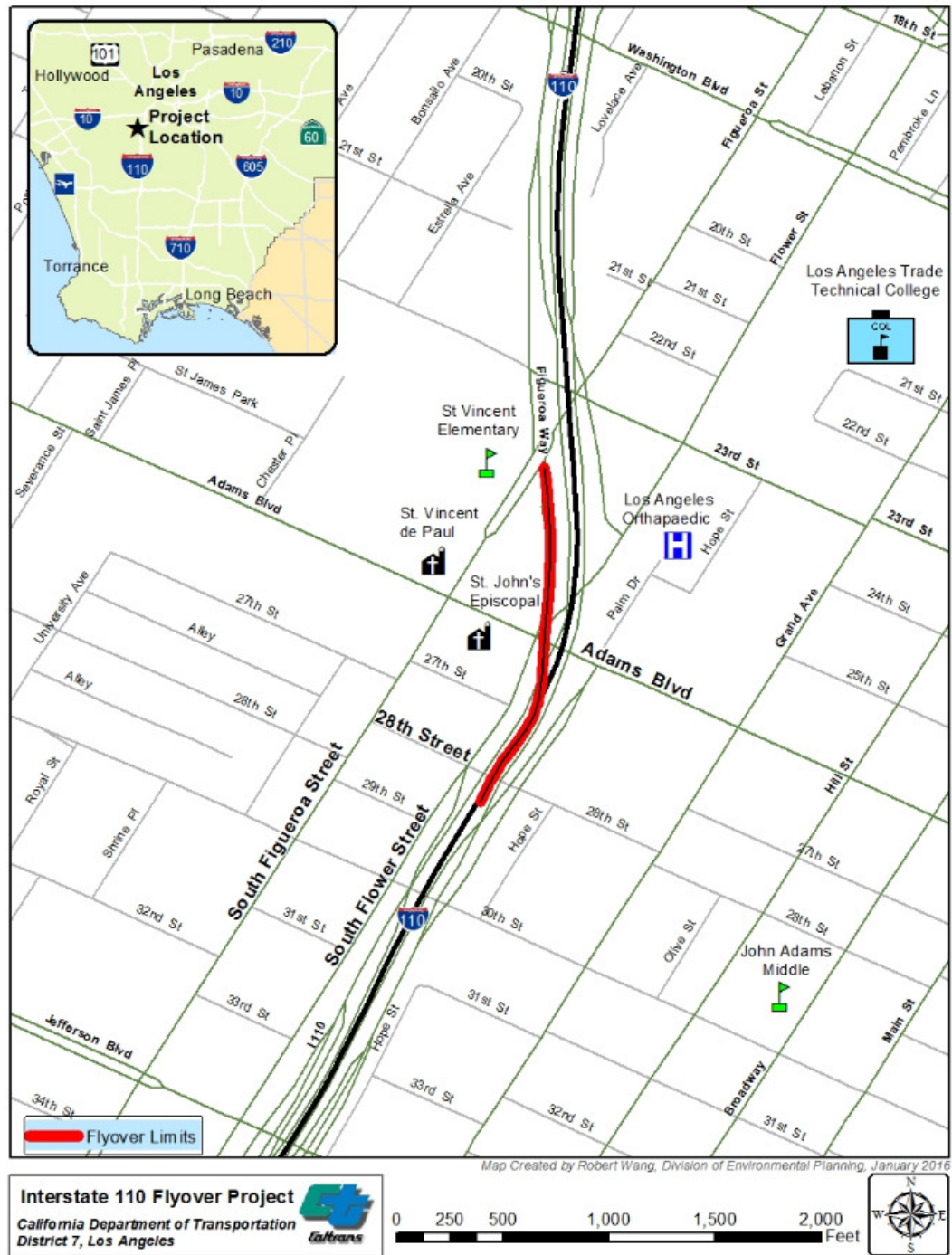
A logical terminus describes logical beginning and end points for an improvement project, including the beginning and end points of its impacts. In the case of this project, many of the vehicles traveling the HOT lanes on the Transitway exit on Adams Blvd. in order to access Figueroa St. The project would allow those vehicles to bypass the congested intersections and exit the HOT lane facility directly onto Figueroa St. Those looking to exit at Adams Blvd. would still be able to do so. The project would not require future construction to use the project's design capabilities fully and meet the purpose and need. The proposed project has been designed 1) to connect logical termini, 2) to have independent utility or independent significance, and 3) not to restrict consideration of alternatives for other reasonably foreseeable transportation improvements.

Therefore, based on the above and pursuant to 23 CFR 771.111(f), this project has independent utility and logical termini.

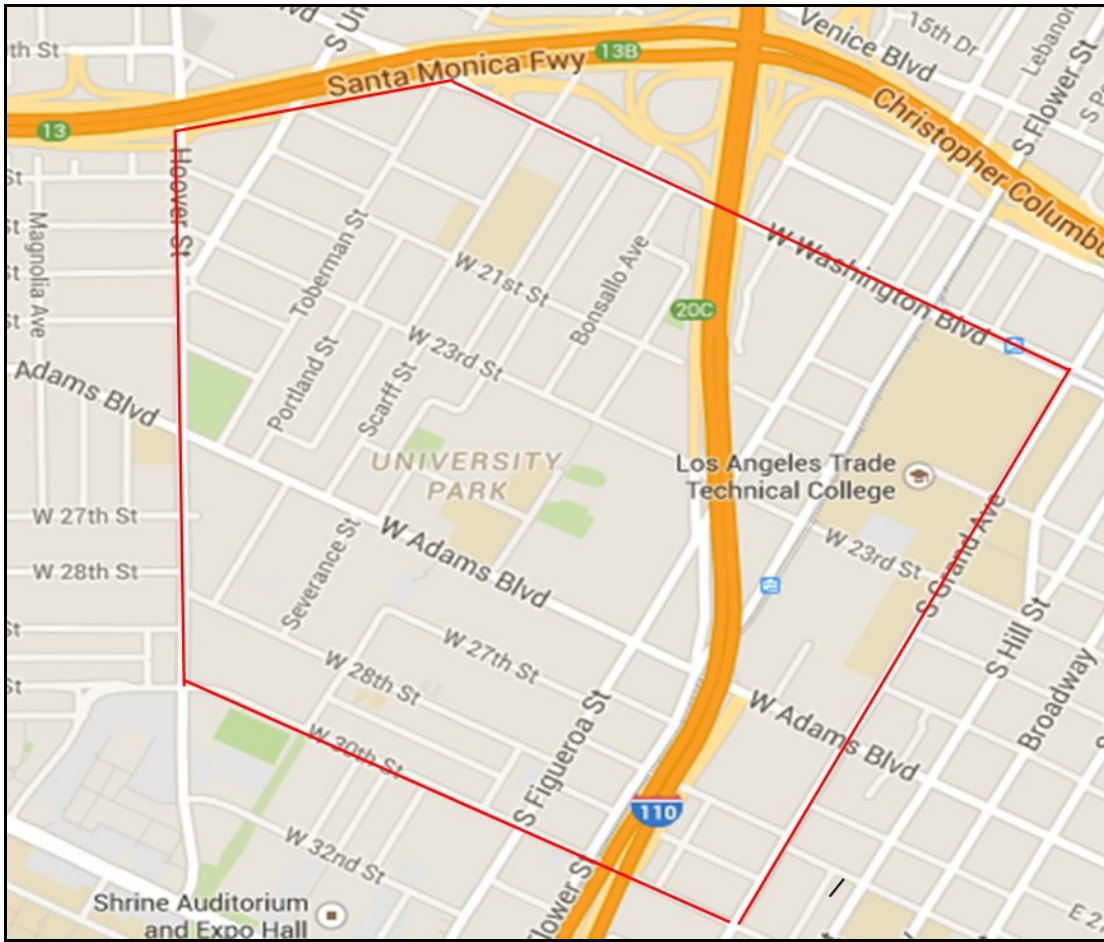
## **1.4 Project Description**

Caltrans, in cooperation with Metro, proposes to construct an elevated off-ramp structure on the NB I-110 between 30<sup>th</sup> St. and Figueroa St. Overcrossing in the City of Los Angeles. Refer to Figure 1 for a project location map. The proposed structure would bypass the bottleneck intersections at Flower St. and Adams Blvd. and NB I-110 HOT off-ramp to Adams Blvd., connecting the HOT lane traffic to Figueroa St. (see Figure 2 for a project study area map). The structure would be approximately 1400 feet in length with two standard lanes (twelve feet in width) and a four-foot left shoulder as well as eight-foot right shoulder will be provided. All new structures will be within State right of way; minimal right of way acquisition will be required for maintenance, ingress/egress, access control, and setback purposes as well as emergency services access. The project is being planned in coordination with the City of Los Angeles' My Figueroa Project (MyFig Project), on Figueroa St. Figure 3 shows the proposed project features. A study area encompasses the area in which primary, direct, and/or secondary socioeconomic impacts associated with the project are likely to occur at their greatest intensity. The study area boundaries are West Washington Blvd to the north, 30<sup>th</sup> St. to the south, Hoover St. to the west, and South Grand Ave. to the east. The study area falls into two City of Los Angeles Community Plan Areas: the South and Southeast Los Angeles Community Plans.

**Figure 1: Project Location Map**

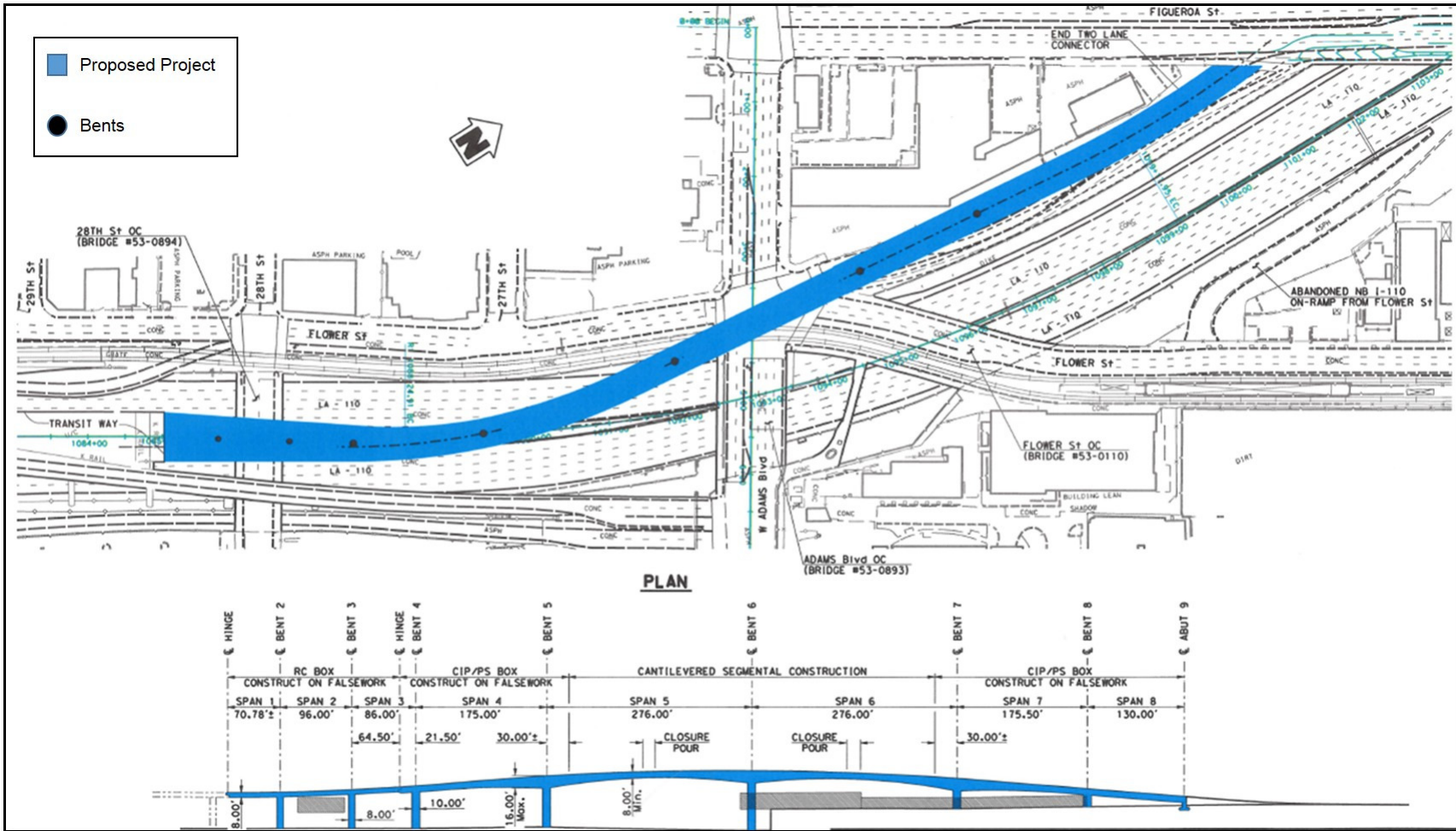


**Figure 2: Project Study Area Map**



Source: Google Maps

### Figure 3: Proposed Project Features Map



Source: Caltrans Structures Unit (January 2016)



## 1.5 Project Alternatives

### **Alternative 1 (No-Build Alternative):**

The No-Build Alternative proposes no physical improvements to the current freeway structures, and would maintain the current configuration of the existing freeway, transitway and off-ramps. Only approved and planned projects included in SCAG's 2015 Regional Transportation Plan (RTP) are considered part of Alternative 1. The existing conditions at the time of beginning environmental studies are used as a baseline for California Environmental Quality Act (CEQA), and the No-Build Alternative is used as a baseline for the National Environmental Policy Act (NEPA).

### **Alternative 2 (Build Alternative):**

This alternative proposes a two-lane flyover off-ramp connector structure (approximately 1,400 feet in length). The structure will connect from the end of the existing viaduct (the Harbor Transitway) and land at the existing Figueroa Way. Two standard lanes (12 feet in width) will be provided, with a four-foot left shoulder and eight-foot right shoulder. New column/bent locations will be located at Figueroa Way and in the I-110 mainline. Utilities are not anticipated to be impacted by the proposed project and no utility relocations are anticipated. Please refer to Figure 4: Design Concept 1 for a conceptual design of the proposed Build Alternative. The cost associated with this alternative is approximately \$43 million.

Construction of the build alternative may include the following associated work:

- Minimal right of way would be acquired at the westerly side of the project for maintenance, ingress/egress, access control, and setback purposes
- Removal of existing and delineation of new traffic stripes and/or pavement marking (yellow thermoplastic stripes, white thermoplastic stripes, and pavement markers)
- Upgrade or replace existing roadside signs, modify/add overhead signs for Figueroa St. exit
- Signal upgrade/modification (off-ramp terminus at Figueroa St. intersection)
- Lighting upgrade/modification
- Drainage improvements/updates
- Utility relocation
- Landscape work

*I-110 Flyover Project*

**Figure 4: Potential Design Concept 1**



Source: Caltrans Headquarters Bridge Aesthetics Unit



## **1.6 Alternatives Considered but Eliminated from Further Discussion**

This section includes all alternatives that were considered during the project development process, but were eliminated from further consideration, and the reason for rejection.

A Value Analysis (VA) study, sponsored by Caltrans District 7 and facilitated by Value Management Strategies, Inc., was conducted for the project in January 2013 in the District 7 offices.

The objectives of the VA study were to:

- Review project operational features: benefit to the mainline operations and to the City of Los Angeles roadway network
- Assist in screening alternatives for the Environmental Document
- Review the feasibility and constructability of the future HOT lane extension north.
- Review traffic impacts during construction
- Review cost and schedule improvements

**Alternative 2A: Two-lane Flyover Off-ramp.** This alternative would convert the existing I-110 Hot off-ramp/Adams Blvd. into two exclusive right turn lanes, designated southbound Flower St. left-turn movement onto Adams Blvd. traveling eastbound would be eliminated. This alternative also includes converting Figueroa St. bus lane to bus and HOT lane. Eastbound Adams Blvd. would be tapered off (two lanes) to southbound Flower St. (Adams Blvd. eastbound segment between Flower St. and NB off-ramps would be closed to traffic). The signal would still remain at the Adams Blvd./Flower St./Figueroa Way/Light Rail Train (LRT) intersection.

**Reason for Rejection:** This alternative was rejected due to the impacts and limitations on local streets.

**Alternatives 2B: Two-lane Flyover Off-ramp Plus Eastbound Adams Blvd. Converted.** This alternative is identical to Alternatives 2A except eastbound Adams Blvd. from the mainline off-ramp would be converted into a one-way eastbound direction.

**Reason for Rejection:** This alternative was rejected due to the impacts and limitations on local streets.

**Alternative 3: Extension of the Existing I-110 Viaduct and a One lane HOV off-ramp to Figueroa Way.** This alternative includes two elevated structures. The extension of the viaduct (885 feet in length) from the end of the existing I-110 Transitway to approximately 105 feet north of the Adams Blvd. OC, and one-lane fly-over structure (646 feet in length), coming off the proposed viaduct extension and landing at the existing expressway, which is done to bypass the existing at grade bottleneck intersections (The Harbor Transitway/Adams Blvd. & Adams Blvd./Flower St.). This alternative would involve additional roadway widening on the I-110 mainline and replacement of the Adams Blvd. overcrossing, Flower St. overcrossing, partial replacement of the Flower St. overhanging structure, mainline retaining wall reconstruction, utility relocation, and construction of a temporary bridge structure to keep the Expo Line open during construction.

**Reason for Rejection:** The estimated project cost would be \$100-125 million. Additional roadway widening on the I-110 mainline between 28th St. and Figueroa St. would be needed. The portion of the Expo Line on Flower St. would be impacted and the replacement of the portion of Flower St. would be needed. Additional right of way acquisition would be needed, at an estimated cost of \$100,000 - \$580,000. Impacts to local structures, nearby light rail transit line, utilities, and mainline I-110 would be extremely expensive.

**Alternative 4: Extension of the Existing I-110 Viaduct and a One-lane HOV Off-ramp to the Intersection of 23rd St. & Figueroa St.** This alternative includes two elevated structures: The extension of the viaduct (1,060 feet in length) from the end of the existing I-110 Transitway to 480 feet north of the Adams Blvd. OC, and one-lane fly-over structure (1,040' in length), coming off the side of the proposed viaduct extension and entering at the southwest corner of the intersection of Figueroa St. and 23rd St., to bypass the existing at grade bottleneck intersections (The Harbor Transitway/Adams Blvd. & Adams Blvd. /Flower St.).

**Reason for Rejection:** The estimated project cost would be \$130-165 million. Additional roadway widening on the I-110 mainline between 28th St. and Figueroa St. would be needed. The portion of the existing LRT on Flower St. would be impacted and the replacement of the portion of Flower St. would be needed. Additional right of way acquisition would be needed, and the estimated right of way for this alternative would be \$100,000 -580,000.

**Alternative 5: East Side Flyover.** This alternative, Alternative 1.1 in the VA Study Report, proposed a two-lane flyover off-ramp structure from the northbound terminus of the Transitway that would bypass the existing at-grade congested intersections (northbound Transitway off-ramp/Adams Blvd. and Adams Blvd./Flower St.). The structure would be located on the east side of the freeway and touch down at the existing intersection of 23<sup>rd</sup> and Figueroa Streets.

**Reason for Rejection:** This alternative would require significant changes and result in significant impacts to the 23<sup>rd</sup>/Figueroa Streets intersection. The resultant five-way intersection would operate at a Level of Service F, with motorists encountering a delay of approximately 8 minutes before entering the intersection. This alternative would also involve the construction of an elevated structure prohibitively close to the Los Angeles Orthopedic Medical Center, located at 2400 South Flower St., and right of way would be required.

**Alternative 6: Adams Blvd. Off-ramp Widening.** This alternative, Alternative 1.2 in the VA Study Report, this alternative would widen the existing right-side HOT lane off-ramp to Adams Blvd. to make it a two-lane exit configuration at the nose in lieu of the one-lane condition in the current configuration for the HOT off-ramp. This alternative would also create left turns on the off-ramp with the No. 4 lane an either/or (right turn/left turn). In order to receive the four left-turn lanes on westbound Adams Blvd., the following revisions are required to the five-lane section as currently exists on the northbound Adams Blvd. lanes:

- left-turn lane
- 2 through lanes [with the No. 2 through lane an either/or (straight/right turn)]
- 2 trapped off lanes to Figueroa Way

The widening of the HOT off-ramp will require that the mixed-flow off-ramp to Adams Blvd. be shifted out to accommodate the space required by the HOT off-ramp structure widening. The shift in the mixed-flow lanes will require that the northwest corner of the parking structure be impacted. I-110 off-ramp/Adams Blvd. will be converted into a

T-intersection with HOT lane traffic only turning left (westbound) and mixed-flow traffic headed either westbound or eastbound only, which will be removed to allow free flow traffic onto Adams Blvd. Westbound Adams Blvd. starting at the off-ramp intersection will be westbound to Grand Ave. Eastbound Adams Blvd. will be trapped off (two lanes) to southbound Flower St. The signal will still remain at the Adams Blvd./Flower St./Figuerroa Way/LRT intersection. A subset of this alternative was to retain the eastbound Adams Blvd. through movement across Flower St.

**Reason for rejection:** Northbound HOT traffic does not bypass the two intersections (I-110 off-ramp/Adams Blvd. and Adams Blvd./Flower St./Figuerroa Way/LRT intersection), Right of way impacts to the parking structure, and the City network is changed significantly with out-of-direction travel.

**Alternative 7: Adams Blvd. Off-ramp Widening and Mixed Flow Off-ramp Reconfiguration.**

This alternative was initially proposed as Alternative 1.3 in the VA Study Report. It proposes to widen the existing northbound Adams Blvd. HOT lane off-ramp on the right side to create a two-lane exit configuration at the nose in lieu of the one-lane current condition. This would create four turning lanes onto Adams Blvd. from the off-ramp: one exclusive left-turn lane, two exclusive right-turn lanes, and the number two lane an optional right or left turn. I-110 northbound mixed flow off-ramp would be reconfigured to right-turn only lanes onto eastbound Adams Blvd, which would become a one-way street in the eastbound direction to Grand Ave. The I-110/Adams Blvd. terminus will be an un-signalized intersection at Adams Blvd./off ramp feeding Adams Blvd. eastbound (only) and Adams Blvd. westbound (only) for traffic exiting the off-ramp. The off-ramp traffic will be provided two HOT left turns to Adams Blvd. westbound and five HOT/mixed-flow right turns to eastbound Adams Blvd. (total of six lanes at the terminus as one of these is an either/or lane). The five eastbound receiving lanes on Adams Blvd. will converge to one either/or (through or right) and three left turn lanes turning onto northbound Grand Ave. Grand Ave. will be converted to four northbound-only traffic lanes between Grand Ave. and Washington Blvd. At Washington Blvd., the existing one-way South Grand Ave. will also need to be converted to northbound.

**Reason for Rejection:** This alternative would significantly impact the operations of the intersections of Figuerroa St./Adams Blvd., which would operate at a Level of Service F. Additionally, southbound regional traffic flow would be impeded. Northbound HOT traffic does not bypass the two intersections (I-110 off-ramp/Adams Blvd. and Adams Blvd./Flower St./Figuerroa Way/LRT intersection), right of way impacts to the parking structure, and the City network is changed significantly with out-of-direction travel

**Alternative 8: Increase Figuerroa St. capacity by eliminating the 23rd St./Figuerroa St. signals.**

This alternative was initially proposed as Alternative 2.1 in the VA Study Report. The alternative proposes to eliminate the 23rd St./Figuerroa St. signals. At the 23rd St./Figuerroa St. intersection, eliminate 23rd St. access across Figuerroa St. with right-only movement from northbound and southbound Figuerroa St. to 23<sup>rd</sup> St..

**Reason for Rejection:** This alternative constrains the City of Los Angeles' MyFig project, which will be redesigning the Figueroa Corridor into a complete, multimodal street that better serves the needs of pedestrians, bicyclists, and transit riders, while accommodating drivers. This alternative constrains MyFig Project particularly as the MyFig project disperses Figueroa St. traffic to the surrounding city network. This dispersion creates a need to retain the existing access at 23rd, 22nd, 21st, and 20th Streets and the access afforded by the two-way left-turn lane (TWLTL).

**Alternative 9: Increase HOT lane merge capacity and Figueroa St. capacity by limiting access from 23<sup>rd</sup> St. to 20<sup>th</sup> St.** This alternative was initially proposed as Alternative 2.2 in the VA Study Report. This alternative proposes to shift the northbound Figueroa Street's three lanes into the location of the existing TWLTL/ left-turn pockets. This shift provides the space to bring on two exclusive Figueroa Way right-turn lanes onto Figueroa St. Eliminate the 23rd St./Figueroa St. signalized intersection and the TWLTL between 23rd and Washington Blvd. (with the left turn at Washington Blvd. retained). Revise the 23rd St./ Figueroa St. intersection to restrict 23rd St. access across Figueroa St. with right-only movement off northbound and southbound Figueroa St. into 23rd St.

**Reason for Rejection:** This alternative constrains the MyFig project, particularly as the MyFig project disperses Figueroa St. traffic to the surrounding city network. This will require the access between 23rd and 20<sup>th</sup> Streets for this dispersion. This alternative limits the access from/to Figueroa St. and 23rd St. and subsequent three intersections (22nd, 21st, and 20th Streets) and the access afforded by the TWLTL, changes in the traffic circulation patterns of 23rd, 22nd, 21st, and 20th Streets with out-of direction implications, and impacts pedestrian crossing at Figueroa St. and 23rd St.

**Alternative 10: Increase Figueroa St. capacity by creating a reversible lane on Figueroa St. to Washington Blvd.** This alternative was initially proposed as Alternative 2.3 in the VA Study Report. This alternative would create a reversible lane in the median of Figueroa St. that would provide five lanes north starting at Figueroa Way, north to Washington Blvd. During off-peak periods there would be four lanes north of Figueroa Way. Allow the two Figueroa Way lanes to join Figueroa St. with two free right turns during peak periods by shifting the No. 1 lane to the location of the left-turn pockets/median. This will require the removal of the hardscape features of the median/left-turn lanes with a painted TWLTL that occupies the median in order to allow the left turns to be in place off peak and the addition of the through lane (north of Figueroa Way to Washington Blvd.). The free right would be two lanes from Figueroa Way to Figueroa St. at all times. Signals that support use of the left turn for off-peak period/the additional through lane during peak periods would need to be installed.

**Reason for Rejection:** This alternative constrains the MyFig project, particularly as the MyFig project disperses Figueroa St. traffic to the surrounding city network. This will require the access between 23rd and 20<sup>th</sup> St. for this dispersion. This alternative can be pursued at a later date if the MyFig project is eliminated. This alternative disallows left-turn movements and changes the traffic circulation patterns of 23rd, 22nd, 21st, and 20th Streets. Impacts to pedestrian crossing at Figueroa and 23rd Streets during peak periods may occur. Increases in potential collisions caused by the changes in the use of the median during peak and non-peak period is likely to occur.

**Alternative 11: Transportation System Management and Transportation Demand**

**Management Alternative.** Transportation System Management (TSM) strategies consist of actions that increase the efficiency of existing facilities; they are actions that increase the number of vehicle trips a facility can carry without increasing the number of through lanes. Examples of TSM strategies include ramp metering, auxiliary lanes, turning lanes, reversible lanes, and traffic signal coordination.

Transportation Demand Management (TDM) encourages public and private transit, ridesharing programs, and bicycle and pedestrian improvements as elements of a unified urban transportation system. TDM addresses traffic congestion by reducing travel demand rather than increasing transportation capacity and focuses on alternatives such as ride sharing, flextime, increased transit usage, walking, and bicycling. TDM focuses on regional strategies for reducing the number of vehicle trips and vehicle miles traveled and increasing vehicle occupancy. It facilitates higher vehicle occupancy or reduces traffic congestion by expanding the traveler's transportation choice.

**Reason for Rejection:** Because TSM strategies currently are employed in the project area (HOT and auxiliary lanes) and traffic congestion is still prevalent, TSM measures alone will not address the existing capacity deficiency of the current conditions. Multi-modal alternatives integrate multiple forms of transportation, such as pedestrian, bicycle, automobile, rail, and mass transit. Because a range of transportation options is currently available in the project area and traffic congestion is still prevalent, multi-modal alternatives alone will not be adequate to meet the purpose of and need for the Proposed Project.

*I-110 Flyover Project*

**Table 2: Potential Permits and Approvals Needed**

<b>Permit/Approval</b>	<b>Approving Agency</b>	<b>Status/Timing</b>
Air Quality Conformity Determination	Federal Highway Administration (FHWA)	Applicable documentation will be transmitted to FHWA after circulation of the draft Environmental Document. Final IS/EA cannot be approved without FHWA concurrence on Air Quality Conformity Determination
Construction General Permit (Order No. 2009-009-DWQ)	State Water Resources Control Board	Applicable documentation to be completed during the Plans Specifications and Estimates (PS&E) phase of the project
National Pollutant Discharge Elimination System	State Water Resources Control Board	Applicable documentation to be completed during the PS&E phase of the project
Encroachment Permit	City of Los Angeles	Applicable documentation to be completed during the PS&E phase of the project
Storm Drainage Connection Permit	Los Angeles County/City Department of Public Works	Applicable documentation to be completed during the PS&E phase of the project

## **Chapter 2      Affected Environment, Environmental Consequences, and Avoidance, Minimization, and/or Mitigation Measures**

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As part of the scoping and environmental analysis done for the project, the following environmental issues were considered, but no adverse impacts were identified. Therefore, there is no further discussion of these issues in this document.

- Coastal Zone
- Wild and Scenic Rivers
- Farmlands/Timberlands
- Wetlands or Other Waters
- Plant Species
- Threatened or Endangered Species
- Hydrology and Floodplain

## **2.1 Human Environment**

### **2.1.1 Land Use**

#### **Existing and Future Land Use**

##### **Affected Environment**

According to the Community Impact Assessment (August 2015), the project falls within two City of Los Angeles Community Plans (South Los Angeles Community Plan Area and Southeast Los Angeles Community Plan Area). Refer to Figure 5 for a map of South and Southeast Los Angeles Community Plans Study Areas. According to The South Los Angeles Community Plan (2012), the area is approximately 7,272 acres or roughly 15.4 square miles of land area and is located less than two miles southwest of Downtown Los Angeles. The Community Plan Area is generally 1.5 miles from west to east (between Arlington Ave. and Figueroa St.) and 8.5 miles from north to south (between Pico Blvd. and Century Blvd.), making it a relatively long and narrow Community Plan Area.

The South Los Angeles Community Plan Area is bounded by Pico Blvd. to the north, Figueroa St. and Broadway to the east, Century Blvd., 105th, 108th and 120th Streets to the south and Van Ness and Arlington Avenues to the west.

The Southeast Los Angeles Community Plan Area is bounded by the Santa Monica Freeway (I-10) to the north, Figueroa St. and Broadway to the west, 120th St. and Imperial Highway to the south, and Alameda St., Central Ave. and Mona Blvd. to the east.



**Figure 5: South & Southeast Los Angeles Community Plans Study Area Maps**

**South Los Angeles Study Area**



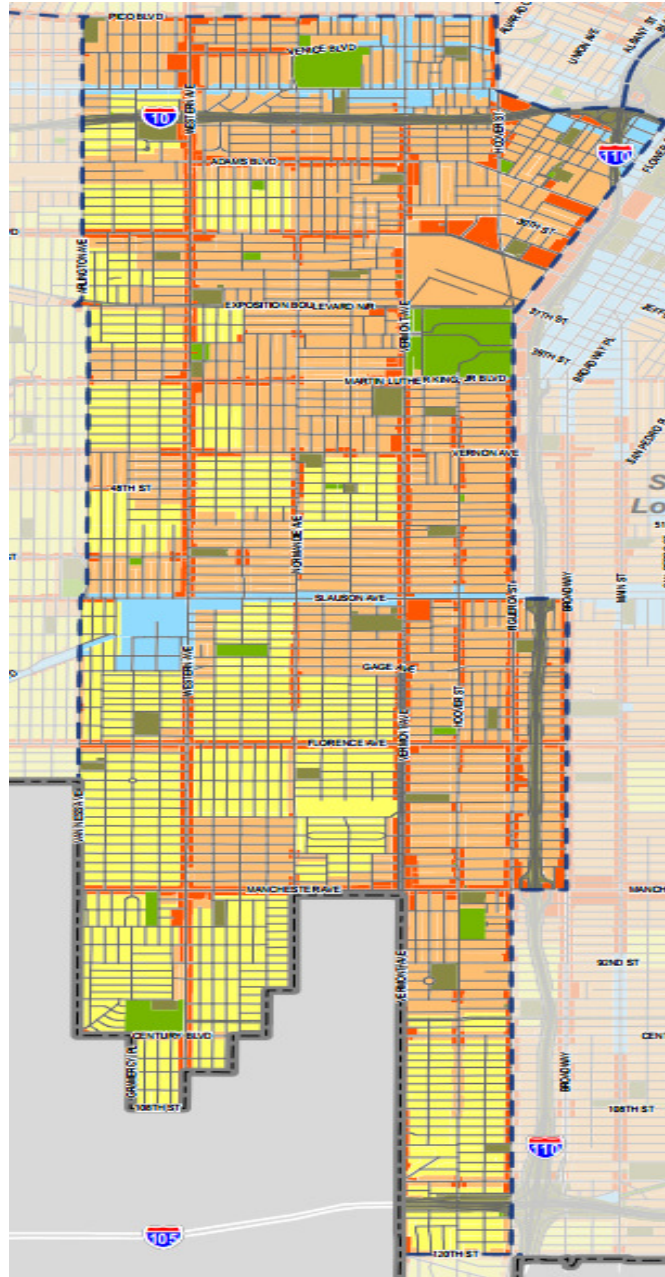
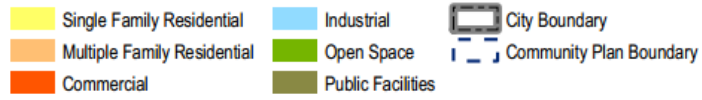
**Southeast Los Angeles Study Area**



Source: South Los Angeles and Southeast Los Angeles Community Plans

## *I-110 Flyover Project*

**Figure 6: South Los Angeles Land Use Map**



Source: South Los Angeles Community Plan; City of Los Angeles Planning Department

### **South Los Angeles Community Plan**

The South Los Angeles Community Plan Area is comprised largely of residential land uses with 5,381 acres, or 74 percent, devoted to some form of housing (see Figure 6 South Los Angeles land use map). Of those 5,381 acres, nearly 30 percent of residential land is designated for single-family homes, and South Los Angeles contains many stable, low-density residential neighborhoods. Single-family residential uses are primarily located in the southern and western portions of the Community Plan Area, while multi-family residential uses are concentrated in the northern and eastern portions of the Community Plan Area. The majority of residential uses are located within the low and low medium I and II land use designations.

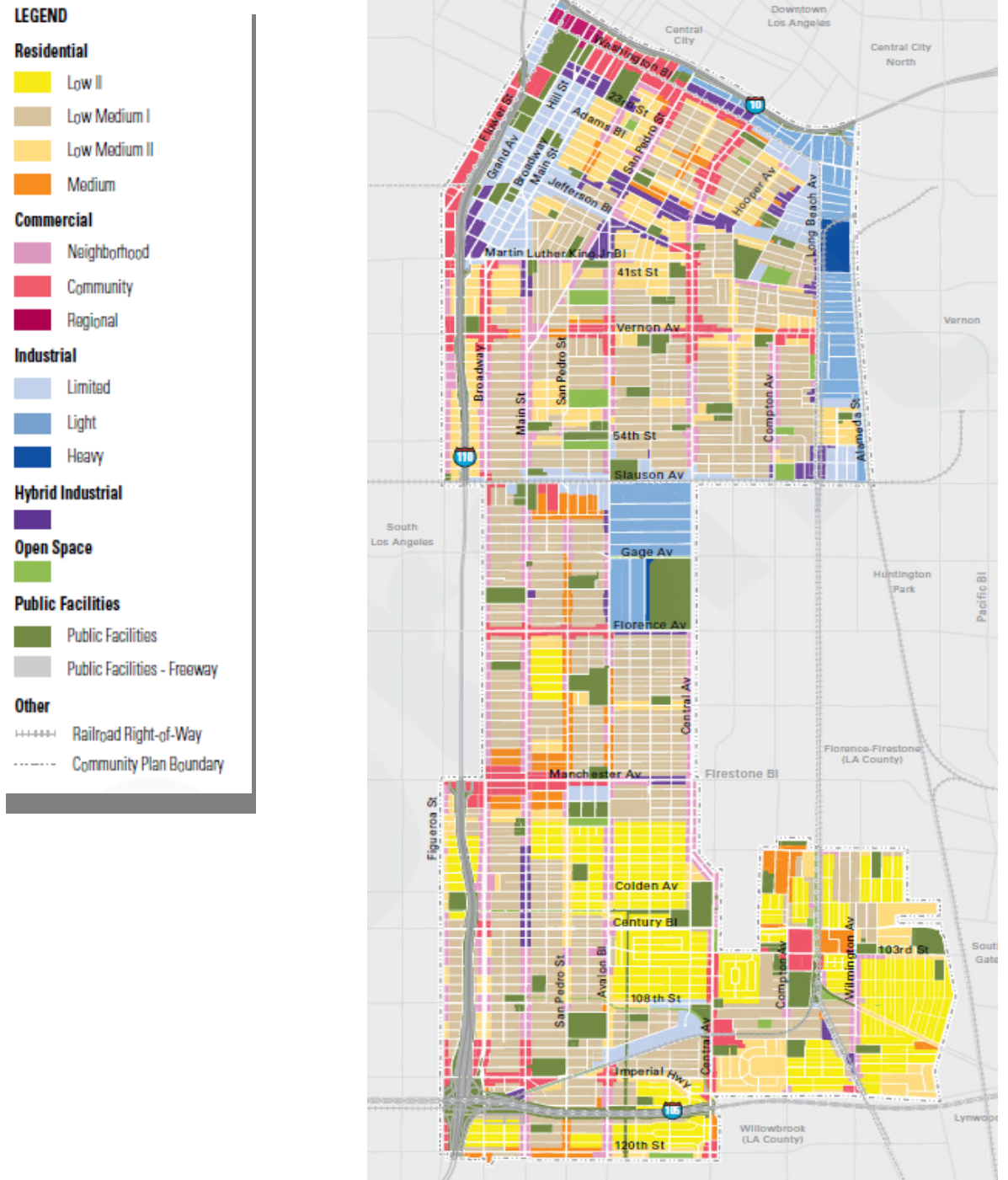
Surrounding the residential areas are commercial land uses, primarily located along the Community Plan Area's major corridors. Existing commercial land uses in South Los Angeles total approximately 863 acres, or 12 percent, of the community. Commercial uses are dispersed within the east-west and north-south major corridors along parcels designated neighborhood commercial, general commercial and community commercial. Uses along the corridors include a variety of low-rise retail, office, government or institutional buildings. South Los Angeles also contains a small portion of industrial land primarily consisting of commercial manufacturing and light and limited industrial uses. Industrial land uses comprise a total of 274 acres or almost 4 percent of the Community Plan Area. The majority of the industrial uses are within the light industrial land use designations. Limited and hybrid industrial uses can be found along portions of Washington Blvd., Venice Blvd., and Slauson Ave. Only one area, generally located near Western Ave. south of Slauson Ave. and north of Gage Ave., is designated as light industrial.

South Los Angeles is relatively parks-poor compared to the rest of Los Angeles and open space uses comprise a total of 296 acres or 4 percent of the South Los Angeles Community Plan Area. A variety of small and large-scale parks with different amenities, including sports facilities, playgrounds and passive green spaces, provide recreational opportunities for South Los Angeles residents.

### **Southeast Los Angeles Community Plan**

According to the 2014 Draft Southeast Los Angeles Community Plan (Figure 7 Southeast Los Angeles Land Use Map), Southeast Los Angeles is an urbanized community that is nearly fully developed with few vacant land infill opportunities throughout the Plan Area. It has a predominantly level topography and is surrounded by major transportation infrastructure, including the I-110, I-10, and I-105 Freeways, as well as the Alameda Corridor and Metro Blue, Green, and Expo Lines. There are no major land formations or water ways that define the area. The Community Plan Area is developed with a mixture of multi-family and single-family residential, commercial, industrial, civic, recreational, and open space uses, encompassing approximately 7,300 acres.

Figure 7: Southeast Los Angeles Land Use Map



Source: Southeast Community Plan

Historically, the majority of the Plan Area was planned for residential purposes with the oldest neighborhoods generally located in the northern part of the Plan Area, and to a lesser extent in Watts. However, one can find buildings from the 1890s onward throughout the Community Plan Area. Residential uses comprise the largest portion of the Southeast Los Angeles community with 4,169 acres, or 57.1 percent, of the Community Plan Area designated for residential use. Over 78 percent of this residential land is designated for low to medium density multi-family uses. Southeast Los Angeles contains 12.4 percent land area designated for single-family uses, most of which is concentrated in the southern portion of the Plan Area. Accordingly, plan policies provide for the retention and preservation of existing residential neighborhoods throughout the Plan Area, and particularly single-family districts.

Commercial land uses comprise 924 acres, or 12.7 percent, of the Plan Area. These uses are generally concentrated along the north-south streets of Figueroa St., Broadway, Main St., San Pedro St., Avalon Blvd., Central Ave., Compton Ave., and Wilmington Ave. The east-west streets of Florence Ave. and Manchester Ave. are predominantly commercial while Martin Luther King Jr. Blvd. and Vernon Ave. have a mixture of commercial and residential uses. Traditional commercial development is undergoing a transition into an auto-oriented built form with new strip-mall type of development throughout many of the corridors. Industrial land uses comprise 884 acres, or 12.1 percent, of the Plan Area. Industrial land uses are primarily concentrated in the northern portion of the community with smaller industrial clusters in the mid and southern portion of the Plan Area. These areas provide a substantial number of jobs in the community and region. An additional 195 acres or 2.7 percent of the Plan Area is designated as hybrid industrial, which is a land use that provides for a combination of limited residential uses with compatible light industrial uses. This land use was previously named commercial manufacturing.

The Southeast Los Angeles Community Plan contains 130 acres or 1.8 percent of the Plan Area designated as open space. The open space land use designation encompasses the community's parks and recreational facilities. There is no undeveloped open space in Southeast Los Angeles. The current amount of open space does not meet City standards but due to the limited availability of undeveloped land, adding more open space facilities is difficult. Public facilities comprise 998 acres or 13.7 percent of the Plan Area. These facilities include schools, fire and police stations, utilities, and libraries. Schools represent the largest portion of the public facilities in Southeast Los Angeles with approximately 67 public schools in the Community Plan Area. There are 50 elementary schools, 12 middle schools, and 5 high schools.

### **Future Land Use**

Regionally, development trends in the greater Los Angeles area are shifting from development of vacant lands to infill, redevelopment, and transit oriented development. According to the City's general plan, current land use policy encourages future development to occur in neighborhood districts, commercial and mixed-use centers, along boulevards, industrial districts, and in proximity to transportation corridors and transit stations. The goal of these policies is to create a healthier, more equitable, and more livable city. Land use policies for future development within unincorporated areas are geared towards the implementation of smart growth policies, environmental management, and provision of healthy and livable communities.

In addition to land use policy, transportation improvements within the greater Los Angeles area are focused on re-working the existing system and transitioning to a more transit-based system that will encourage transit-oriented development and improve area circulation and health for area residents.

## *I-110 Flyover Project*

According to Los Angeles Downtown News article “The Development Boom: Updates on 97 Downtown Projects” (February 24, 2014), “Downtown Development: Updates on 90 Projects” (May 19, 2015), “Downtown Development: The Latest Info on 96 Projects”(February 24, 2015), City of Los Angeles website, University of Southern California (USC) website, and the State Clearinghouse CEQA Database (July 2015) below Table 3 lists potential projects that are new projects in construction, and/or potential projects within/near the South and Southeast Los Angeles Community Plan Study Areas (refer to Figure 8 for a map of projects listed in Table 3. Table 4 lists future Caltrans maintenance projects on I-110.

## *I-110 Flyover Project*

**Table 3: List of Potential Projects within/near South & Southeast Los Angeles Community Plan Areas**

Name/Location	Jurisdiction	Proposed Uses	Status
<b>1.) FIGUEROA CORRIDOR BIKEWAY (MyFig Project)</b> /Figueroa Street from 7th Street in downtown Los Angeles to 41st Street, just south of Exposition Park; 11th Street from Figueroa Street east to Broadway in the South Park neighborhood of downtown Los Angeles; and Martin Luther King Jr. Boulevard from Figueroa Street west to Vermont Avenue, on the south edge of Exposition Park.	City of Los Angeles	Seeks to transform the Figueroa Corridor into a complete, multimodal street that better serves the needs of pedestrians, bicyclists, and transit riders, while still accommodating drivers.	Completion is anticipated in December 2016
<b>2.) USC Owned Property</b> /potential development	USC	New academic and administrative buildings, new mixed-use University Village, create pedestrian friendly area	To be determined
<b>3.) G12 PROJECT</b> /Three-acre site bounded by Twelfth and Olive streets, Pico Boulevard and Grand Avenue	Developer Sonny Astani and L&R Group	Residential complex with 640 units	Groundbreaking is yet to be determined
<b>4.) OLYMPIC AND BROADWAY CONDOS</b> /955 S. Broadway	Developer Barry Shy	A 15-story condominium complex; the 184,705-square-foot structure would bring 163 housing units and eight commercial spaces to the corner of Broadway and Olympic Boulevard	No timeline for construction has been revealed
<b>5.) OLYMPIC AND HILL APARTMENTS</b> /Olympic and Hill	Developer Hanover Company	281-apartment complex with seven floors of housing and 16,000 square feet of street-level retail	Completion is anticipated 2015
<b>6.) ONYX Project</b> /Pico Boulevard at Flower and Hope streets	Developer Jade Enterprises	The first of two buildings in the complex at Pico Boulevard at Flower and Hope streets will bring 162 apartments and 13,200 square feet of retail space. The seven-story Onyx is rising on two side-by-side parking lots atop a total of 42,000 square feet of retail and commercial space.	Completion is anticipated 2017
<b>7.) BLOSSOM PLAZA</b> /900 N. Broadway	Developer Forest City	Five-story Blossom Plaza will have 237 apartments (with 53 reserved for low-income residents), a 17,000-square-foot public plaza and a walkway connecting the Metro Gold Line station to Broadway in the heart of Chinatown.	Completion is anticipated in Spring of 2016
<b>8.) CITY MARKET</b> /Bounded by Ninth, San Pedro, San Julian and 12th streets,	City Market owner Peter Fleming	945 residential units, 210 hotel rooms, 225,000 square feet of retail and 295,000 square feet of creative office space. The first phase calls for transforming two aged buildings: One would hold 150 housing units and the other would be an office structure.	Completion is anticipated in 2034



## I-110 Flyover Project

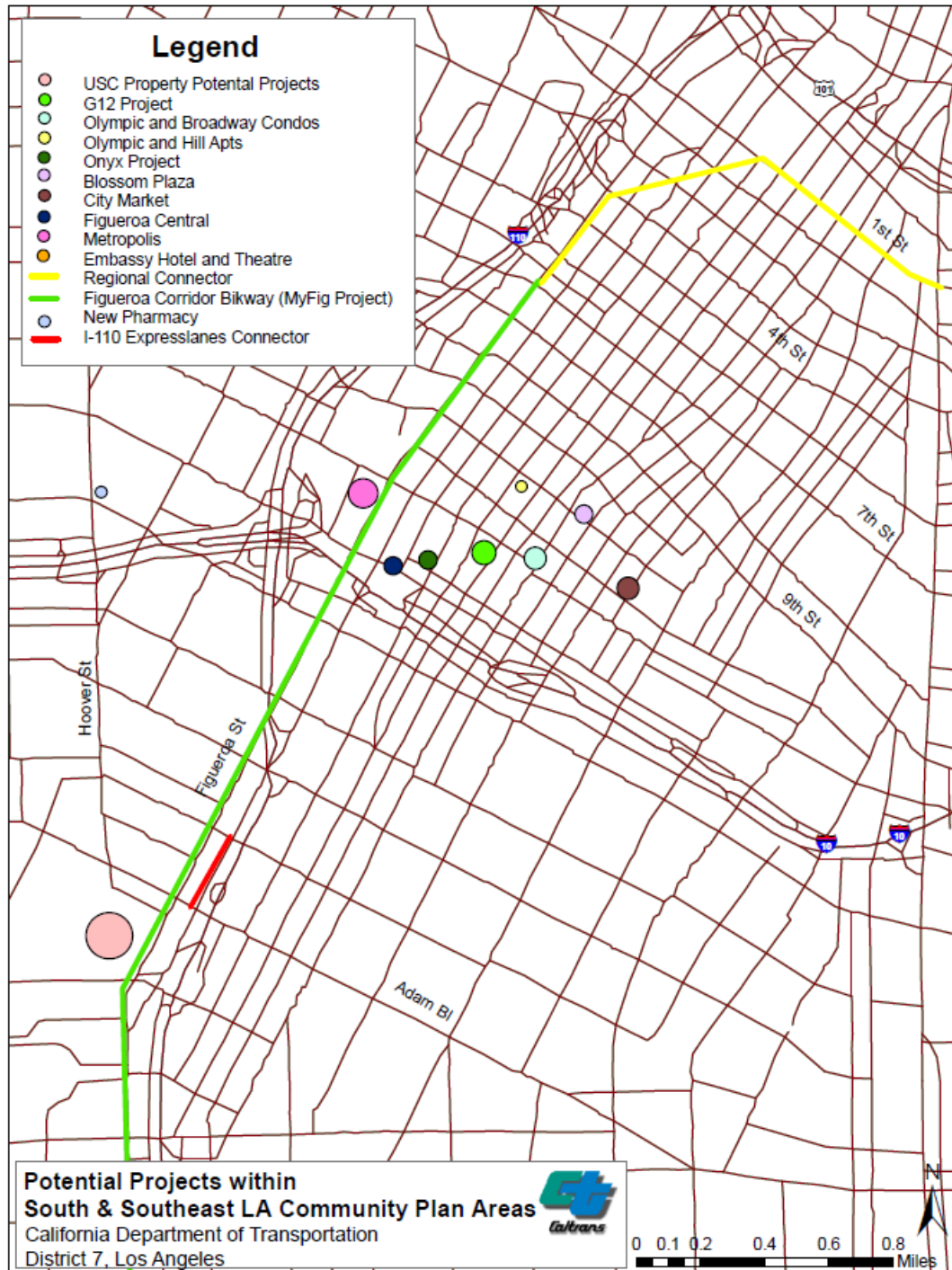
<b>9.) FIGUEROA CENTRAL/A</b> 4.6-acre site immediately east of Staples Center	Beijing's Oceanwide Real Estate Group	Build the massive mixed-use Figueroa Central project on the property, with 45- and 33-story towers, 220 hotel rooms and additional retail space.	Completion is anticipated in 2018
<b>10.) METROPOLIS/The</b> 6.33-acre Metropolis site is bounded by the I-110 Freeway and Francisco, Eighth and Ninth streets	Greenland Group	Create two towers joined by a large public plaza. One will be a 38-story building with about 300 units while the other will be a 19-story hotel with 350 rooms.	Completion is anticipated in 2016
<b>11.) REGIONAL CONNECTOR/Underground</b> tunneling from Little Tokyo to the Financial District by way of Second Street, as well as a trench down Flower Street to Wilshire Boulevard.	Metro	Regional Connector that will connect a series of light rail lines, create three new stations, and streamline travel throughout the region.	Completion is anticipated in 2019
<b>12.) EMBASSY HOTEL AND THEATRE/849 S. Grand Ave.</b>	Chetrit Group	183-room hotel featuring an approximately 2,000-square-foot ground-floor restaurant, a 7,600-square-foot outdoor garden, a lobby bar and a lounge.	Completion is anticipated in 2015
<b>13.) PHARMACY/Washington Blvd./Hoover St.</b>	City of Los Angeles	New one-story 16,572 square feet retail pharmacy with 24 hour operation.	To be determined

**Table 4: Caltrans Potential Maintenance Projects on I-110**

<b>Project Number/Location</b>	<b>Project Description</b>
2W730/LA-110 Postmiles 7.0/16.7	Bridge preservation
2W740/LA-110 Postmiles 16.9/23.6	Joint seal, deck preservation, spall repair
27610/LA-110 Postmiles 3.8/6.5	Gross solids removal devices or other treatment BMP's
2W680/LA-110 Postmiles 24.5/29.2	Deck preservation, spall repair, and approach slab
29770/LA-110 Postmiles 23.7/25.5	Install safety lighting
29590/LA-110 Postmiles 17.9/20.0	Roadside safety improvements
31470/LA-110 Postmiles 10.1/20.4	Install barrier markers, signs, flashing beam
3009U/LA-110 Postmiles 0.7/24.1	Major pavement rehabilitation
29750/LA-110 Postmiles 24.6/30.0	Install concrete barrier and lighting
31200/LA-110 Postmiles 00.0/25.7	Install transportation system management
4Y350/LA-110 Postmiles 28.1/30.6	Drainage Restoration
4Y690/LA-110 Postmiles 9.8/9.8	Replace Sign



**Figure 8: Map of Potential Projects Within/Near South & Southeast Los Angeles Community Plan Areas**



***Environmental Consequences***

**Alternative 1 (No-Build Alternative):** The existing condition would remain; therefore, no impact would occur.

**Alternative 2 (Build Alternative):** The proposed Build Alternative would not require any changes to existing or planned land uses.

***Avoidance, Minimization, and/or Mitigation Measures***

No avoidance, minimization and or mitigation measures are required because no change in land use would be required.

## **2.1.2 Consistency with State, Regional, and Local Plans and Programs**

### ***Affected Environment***

The following are relevant state, regional, and local plans and programs.

#### **The City of Los Angeles General Plan**

The City's General Plan contains goals and policies for future development within the City. The General Plan Framework Element provides overall policy and direction for the entire plan. The City's 35 Community Plans collectively make up the land use policy for the City. Portions of the Project Study Area lie within the South Los Angeles and Southeast Los Angeles Community Plan Areas. The Transportation Element identifies goals, objectives, and policies to achieve long-term mobility and accessibility within Los Angeles. Projects proposed within the City must be consistent with land uses identified in the General Plan Framework and associated community plans.

In addition, transportation improvements within the Greater Los Angeles area are focused on re-working the existing system and transitioning to a more transit-based system that will encourage transit-oriented development and improve area circulation and health by encouraging walking and bicycling for area residents.

#### **Los Angeles County Draft General Plan**

The County's General Plan provides policy and guidance for future growth within unincorporated areas of the County. The plan also provides a foundation on which detailed plans, such as community plans or specific plans, may be based. The Mobility Element includes policies for the development of a multi-modal transportation system that will move people, goods, and services in an environmentally and socially responsible way. Projects proposed within unincorporated portions of Los Angeles County must be consistent with land uses identified in the General Plan.

#### **Los Angeles Conservancy Historic Downtown Los Angeles Design Guidelines**

The Los Angeles Conservancy, in partnership with the Downtown Center, Historic Core and Fashion District Business Improvement Districts (BIDs) prepared the Historic Downtown Los Angeles Design Guidelines in July 2002. The Guidelines describe how alterations and enhancements to buildings within the Historic Downtown can and should be designed so that they reinforce the area's historic environment. The Design Guidelines are a tool to enhance the physical and visual quality of the district and reinforce its historic and urban character. They provide guidance about compatible storefront and signage design, repair and maintenance of older buildings, renovation that highlights historic features, and sensitive new construction.

The Project Development Team is working with a District 7 Historical Architect and Section 106 Other Consulting Parties in order to ensure that the design of the proposed Build Alternative enhances the physical and visual quality of the district and reinforce its historic and urban character. The final design of the bridge will be consistent with the Los Angeles Conservancy Historic Downtown Los Angeles Design Guidelines.

Section 106 Other Consulting Parties are defined in the American Society of State Highway and Transportation Officials (ASHTO) Practitioner's Handbook, "Consulting Under Section 106 of the Historic Preservation Act" (February 2007) as:

*Individuals and organizations with a demonstrated interest in the undertaking also may be designated by the Federal lead agency as consulting parties. See 36 C.F.R. § 800.2(c)(5). These other entities may include ...individual property owners, and other stakeholders. These invited consulting parties have the right to receive information and make their views known at various points in the process, but do not have the right to veto a project decision.*

### **Downtown Street Standards**

The City of Los Angeles City Council adopted the City of Los Angeles Downtown Street Standards in April 2009. The Downtown Street Standards updated the Central City Community Plan street designations based on a more comprehensive street hierarchy that balance traffic flow with other equally important functions of the street, including: pedestrian needs, public transit routes and stops, bicycle routes, historic districts with fixed building street walls, the public face and transitional "front yard" of businesses, pedestrian environments and linear open- space considerations.

The Downtown Street Standards establish definitive future curb lines and property lines for all Downtown streets, and, in some locations, additional required average sidewalk easements. The Downtown Street Standards consist of a series of street cross sections which are specific to each street or street segment.

### **Southeast Los Angeles Community Plan**

The community plan emphasizes improving mobility and access. The City's transportation network should provide adequate accessibility to jobs, services, amenities, open space, and entertainment, and maintain acceptable levels of mobility of all those who live, work, travel, or move goods in Los Angeles. Attainment of this goal necessitates a comprehensive program of physical infrastructure improvements, traffic systems management techniques, and land use and behavioral changes that reduce vehicle trips. An emphasis should be placed on providing for and supporting a variety of travel modes, including walking, bicycling, public transit, and driving.

### **South Los Angeles Community Plan**

The South Los Angeles Community Plan recognizes that land use and mobility goals and policies are interdependent. These citywide goals include:

- Support a first-class, multi-modal transportation system in which jobs, services and amenities are easily accessible to all residents and visitors, which respects the City's unique communities and neighborhoods, and which reduces the City's dependence on automobiles
- Improve air quality, public health, and quality of life through continued investment in rail, transit, bicycle, pedestrian, and trail infrastructure
- Create a street network that balances the needs of all roadway users, including pedestrians, bicyclists, transit riders, and motorists, and which values streets as public open spaces

### **Federal Transportation Improvement Program (FTIP)**

The FTIP/FSTIP (Federal Statewide Transportation Improvement Program) contains all capital and non-capital transportation projects or identified phases of transportation projects in the State of California that are proposed for federal funding under the Federal Transit Act and Title 23 of the United States Code. In addition, all projects that are deemed regionally significant, regardless of the funding source, are included in the FSTIP. Federally- funded transportation projects must conform to the FTIP/FSTIP prior to being approved.

### **State Transportation Improvement Program (STIP)**

The STIP is a multi-year capital improvement program of transportation projects on and off the State Highway System, funded with revenues from the transportation investment fund and other funding sources. Projects receiving STIP funding must be programmed prior to moving forward with implementation.

### **Southern California Association of Governments (SCAG) Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS)**

The SCAG 2012-2035 RTP/SCS presents the transportation vision for Los Angeles, Orange, San Bernardino, Imperial, Riverside, and Ventura Counties. The 2012-2035 RTP/SCS identifies priorities for transportation planning within the Southern California region, sets goals and policies, and identifies performance measures for transportation improvements to ensure that future projects are consistent with other planning goals for the area. Projects being constructed within the SCAG region must be listed in the 2012-2035 RTP/SCS.

The 2012-2035 RTP/SCS goals are as follows:

- Align the plan investments and policies with improving regional economic development and competitiveness
- Maximize mobility and accessibility for all people and goods in the region
- Ensure travel safety and reliability for all people and goods in the region
- Preserve and ensure a sustainable regional transportation system
- Maximize the productivity of our transportation system
- Protect the environment and health of our residents by improving air quality and encouraging active transportation (non-motorized transportation, such as bicycling and walking)
- Actively encourage and create incentives for energy efficiency, where possible;
- Encourage land use and growth patterns that facilitate transit and non-motorized transportation
- Maximize the security of the regional transportation system through improved system monitoring, rapid recovery planning, and coordination with other security agencies
- A reduction in Green House Gas Emissions (GHG)

### **Growth Vision Report Compass Blueprint**

In an effort to maintain the region's prosperity, continue to expand its economy, house its residents affordably, and protect its environmental setting as a whole, SCAG has collaborated with interdependent sub-regions, counties, cities, communities, and neighborhoods in a process referred to by SCAG as Southern California Compass which resulted in the development of a shared Growth Vision Report for Imperial, Los Angeles, Orange, Riverside, San Bernardino and Ventura Counties. SCAG began Compass in 2002, spearheaded by the Growth Visioning Subcommittee, which consists of civic leaders throughout the region. The shared regional vision sought to address issues such as congestion and housing availability which may threaten the region's livability.

The underlying goal of the growth visioning effort is to make the SCAG region a better place to live, work, and play for all residents regardless of race, ethnicity, or income. To organize the strategies for improving the quality of life in the SCAG region, a series of principles was established by the Growth Vision Subcommittee. These goals are contained in the Growth Vision Report and are intended to promote and maximize regional mobility, livability, prosperity, and sustainability. Decisions regarding growth, transportation, land use, and economic development should support and be guided by these principles. Specific policy and planning strategies also are provided as a way to achieve each of the principles.

### **Regional Comprehensive Plan (RCP)**

SCAG has also prepared and issued the 2008 RCP in response to SCAG's Regional Council directive in the 2002 Strategic Plan to define solutions to interrelated housing, traffic, water, air quality, and other regional challenges. The 2008 RCP is an advisory document that describes future conditions if current trends continue, defines a vision for a healthier region, and recommends an Action Plan with a target year of 2035. The RCP may be voluntarily used by local jurisdictions in developing local plans and addressing local issues of regional significance. The plan incorporates principles and goals of the Compass Blueprint Growth Vision and includes nine chapters addressing land use and housing, transportation, air quality, energy, open space, water, solid waste, economy, and security and emergency preparedness. The action plans contained therein provide a series of recommended near-term policies that developers and key stakeholders should consider for implementation, as well as potential policies for consideration by local jurisdictions and agencies when conducting project review.

### **RCP Guiding Principles**

- Improve mobility for all residents. Improve the efficiency of the transportation system by strategically adding new travel choices to enhance system connectivity in concert with land use decisions and environmental objectives
- Foster livability in all communities. Foster safe, healthy, walkable communities with diverse services, strong civic participation, affordable housing, and equal distribution of environmental benefits
- Promote sustainability for future generations. Promote a region where quality of life and economic prosperity for future generations are supported by the sustainable use of natural resources

## **Air Quality Goals**

- Reduce emissions of criteria pollutants to attain federal air quality standards by prescribed dates and state ambient air quality standards as soon as practicable.
- Reverse current trends in greenhouse gas emissions to support sustainability goals for energy, water supply, agriculture, and other resource areas
- Minimize land uses that increase the risk of adverse air pollution-related health impacts from exposure to toxic air contaminants, particulates (PM10, PM2.5, ultrafine), and carbon monoxide
- Expand green building practices to reduce energy-related emissions from developments to increase economic benefits to business and residents

Table 5 lists relevant goals, policies, and objectives related to transportation, circulation, and air quality elements discussed in the City of Los Angeles' General Plan, South Los Angeles Community Plan, and Southeast Los Angeles Community Plan. Table 6 presents the consistency determination for each alternative on relevant policies, goals and objectives for relevant plans and programs.

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# I-110 Flyover Project

**Table 5: List of Relevant Goals, Policies, & Objectives**

Plan/Programs	Element	Relevant Goals/Policies/Objectives
The City of Los Angeles General Plan	Transportation	<b>Policy 1.1</b> Establish highway and transit accessibility measures to be used in evaluating the transportation needs of the City's communities.
		<b>Policy 1.7</b> Provide improved transportation services to support Citywide economic development activities and related economic revitalization initiatives.
		<b>Policy 2.3</b> Promote the development of transportation facilities and services that encourage transit ridership, increase vehicle occupancy, and improve pedestrian and bicycle access.
	Circulation	<b>Policy 3.13</b> Enhance pedestrian circulation in neighborhood districts, community centers, and appropriate locations in regional centers and along mixed-use boulevards; promote direct pedestrian linkages between transit portals/platforms and adjacent commercial development through facilities orientation and design.
	Air Quality	<b>Policy 1.1</b> To reduce air pollutants consistent with the Regional Air Quality Management Plan (AQMP), increase traffic mobility, and sustain economic growth Citywide.
		<b>Policy 1.3</b> To reduce particulate air pollutants emanating from unpaved areas, parking lots, and construction sites.
		<b>Goal 4</b> Minimal impact of existing land use patterns and future land use development on air quality by addressing the relationship between land use, transportation, and air quality.
County of Los Angeles General Plan	Noise	<b>Policy 17</b> Encourage Caltrans, Metro and other responsible agencies to plan and construct transportation systems so as to reduce potential noise impacts on adjacent land uses.
	Mobility	<b>Goal M1:</b> Street designs that incorporate the needs of all users.
		<b>Goal M2:</b> Interconnected and safe bicycle- and pedestrian-friendly streets, sidewalks, paths and trails that promote active transportation and transit use.
		<b>Goal M4:</b> An efficient multimodal transportation system that serves the needs of all residents.

# *I-110 Flyover Project*

Plan/Programs	Element	Relevant Goals/Policies/Objectives
Southeast Los Angeles Community Plan	Circulation	<b>Goal M1:</b> A diverse and multi-functional system of streets that balances the needs of pedestrians, bicyclists, transit users, mobility-challenged persons and vehicles while providing sufficient mobility options for the existing and future users of the street system.
		<b>Goal M2:</b> A circulation system that supports successful neighborhood commercial areas by providing multi-modal access, streets that accommodate public open space and gathering places.
		<b>Goal M3:</b> A walkable community that is universally accessible, safe, pleasant, convenient, and contains an integrated pedestrian system that reduces vehicular conflicts, promotes walking and provides links within the community and to surrounding communities.
		<b>Goal M7:</b> A network of streets, highways, and freeways that supports existing and planned land uses, and provides improved motorized vehicle mobility throughout Southeast Los Angeles.
South Los Angeles Community Plan	Circulation	<b>Goal M1:</b> A street system that is diverse and balances the needs of pedestrians, bicyclists, transit users, mobility-challenged persons, and vehicles, while providing sufficient mobility and abundant access options for the existing and future users of the street system.
		<b>Goal M2:</b> A circulation system that supports successful neighborhood commercial areas by providing multi-modal access, streets that accommodate public open space and gathering places.
		<b>Goal M3:</b> Throughout the community, a street environment that is pleasant, universally accessible, safe, and convenient for pedestrians.
		<b>Goal M7:</b> A network of streets, highways, and freeways that supports existing and planned land uses, and provides improved motorized vehicle mobility throughout the South Los Angeles Community Plan Area, particularly on congested corridors.

*I-110 Flyover Project*

**Table 6: Consistency Determination for Relevant Policies, Goals, and Objectives**

Plan/Programs	Element	Relevant Goals/Policies/Objectives	Consistent with No-Build Alternative 1?	Consistent with Build Alternative 2?
The City of Los Angeles General Plan	Transportation	<b>Policy 1.1</b> Establish highway and transit accessibility measures to be used in evaluating the transportation needs of the City's communities.	Yes, highway and transit accessibility measures can be used to evaluate the City's transportation needs if the No-Build Alternative is chosen.	Yes, highway and transit accessibility measures are considered/developed as part of the design of the proposed Build Alternative, which requires coordination with the City and the surrounding community to ensure that accessibility and the City's transportation needs are met.
		<b>Policy 1.7</b> Provide improved transportation services to support Citywide economic development activities and related economic revitalization initiatives.	No, the current condition does not provide improved transportation services Citywide.	Yes, the proposed Build Alternative would improve circulation and accommodate multi-modal transportation services to encourage access to businesses, and the workforce in the area for all users (drivers, pedestrians, bicyclists, and public transportation users). Construction of the project would provide an economic benefit by potentially providing jobs.
		<b>Policy 2.3</b> Promote the development of transportation facilities and services that encourage transit ridership, increase vehicle occupancy, and improve pedestrian and bicycle access.	No, this alternative would not promote the development of transportation facilities and services that encourage transit ridership, increase vehicle occupancy, and improve pedestrian and bicycle access. This alternative does not promote development of transportation facilities.	Yes, Caltrans promotes development of transportation facilities and services that encourage transit ridership, increase vehicle occupancy, and improve pedestrian and bicycle access. Please refer to the Traffic and Transportation/Pedestrian and Bicycle Facilities section in this document for avoidance, minimization, and/or mitigation measures.

*I-110 Flyover Project*

Plan/Programs	Element	Relevant Goals/Policies/Objectives	Consistent with No-Build Alternative 1?	Consistent with Build Alternative 2?
City of Los Angeles General Plan (continued)	Circulation	<b>Policy 3.13</b> Enhance pedestrian circulation in neighborhood districts, community centers, and appropriate locations in regional centers and along mixed-use boulevards; promote direct pedestrian linkages between transit portals/platforms and adjacent commercial development through facilities orientation and design.	No, this alternative does not enhance pedestrian circulation.	Yes, this project has been designed to accommodate the City of Los Angeles' My Fig Project which has many features to enhance pedestrian circulation and provide access to the community via walking and or bicycling. Further, mitigation measure MIT-1 P&B will enhance pedestrian circulation and enhance safe access to the surrounding community via Figueroa Way by eliminating conflicts between pedestrian and bicycle traffic by adding a designated bike lane.
	Air Quality	<b>Policy 1.1</b> To reduce air pollutants consistent with the Regional Air Quality Management Plan (AQMP), increase traffic mobility, and sustain economic growth Citywide.	No, existing condition would remain, which will increase air pollutants because of the lack of traffic mobility.	Yes, improved mobility, and reduction in idling is anticipated as a result of this alternative. By reducing idling, air pollutants are also reduced (see section 2.2.4 of this document for more details on air quality impacts).
		<b>Policy 1.3</b> To reduce particulate air pollutants emanating from unpaved areas, parking lots, and construction sites.	Not applicable. Since no construction would occur, particulate air pollutants would not be an issue.	Yes, if this alternative is chosen all applicable Best Management Practices (BMPs) will be implemented during construction, which would reduce particulate air pollutants emanating from unpaved areas, and construction sites. All State and Federal laws will be followed throughout the construction period. Refer to section 2.2.4 in this document for appropriate BMPs.

*I-110 Flyover Project*

Plan/Programs	Element	Relevant Goals/Policies/Objectives	Consistent with No-Build Alternative 1?	Consistent with Build Alternative 2?
City of Los Angeles General Plan (continued)	Air Quality (continued)	<b>Goal 4</b> Minimal impact of existing land use patterns and future land use development on air quality by addressing the relationship between land use, transportation, and air quality.	Yes, but air quality is likely to worsen since more vehicles are idling due to the fact that the current transportation infrastructure is not able to support the number of vehicles traveling through the project study area. Delay times will continue to worsen if current condition remains.	Yes, coordination with the City of Los Angeles, studying existing and future land use, as well as air quality conditions ensure that the relationship between land use, transportation, and air quality are addressed. This alternative does not impact land use patterns. Future land use development on air quality is influenced by smart land use decisions that are likely to improve transportation and air quality.
	Noise	<b>Policy 17</b> Encourage Caltrans, Metro and other responsible agencies to plan and construct transportation systems so as to reduce potential noise impacts on adjacent land uses.	Not applicable, since no construction would occur therefore, no planning of minimization measures would be required for potential noise impacts to adjacent land uses.	No, the proposed Build Alternative will not reduce potential noise impacts on adjacent land uses during or after construction, but with the incorporation of appropriate noise and vibration avoidance, minimization, and/or mitigation measures this impact will be minimized. After the construction period is complete, noise levels will be similar to the current condition (please refer to section 2.2.5 in this document).
County of Los Angeles General Plan	Mobility	<b>Goal M1:</b> Street designs that incorporate the needs of all users.	No, existing condition would remain which does not accommodate the current traffic demand or provide safe access to the area for pedestrians, bicyclists, transit users, and mobility challenged persons and vehicles. The current side walk configuration near Flower St. and Adams Blvd. is confusing and not user friendly. There is no designated bike lane/pathway to ensure the separation and safety of pedestrians and bicyclists.	Yes, the proposed Build Alternative would provide all users with sufficient mobility options for existing and future needs. The project would also provide improvements in safety for pedestrians, mobility challenged individuals, bicyclists, public transportation users and drivers. A reduction in congestion is anticipated as a result of the proposed build alternative. The reduction in traffic congestion will potentially reduce traffic accidents at the traffic study locations (refer to the Traffic & Transportation/Pedestrian & Bicycle facility section 2.1.8 in this document for more details).

# *I-110 Flyover Project*

Plan/Programs	Element	Relevant Goals/Policies/Objectives	Consistent with No-Build Alternative 1?	Consistent with Build Alternative 2?
County of Los Angeles General Plan (continued)	Mobility (continued)	<b>Goal M2:</b> Interconnected and safe bicycle- and pedestrian-friendly streets, sidewalks, paths and trails that promote active transportation and transit use.	No, existing condition would remain which does not accommodate the safe travel of pedestrians and/or bicyclists through Figueroa Way, which is a common short cut by community to access the surrounding community. Figueroa Way is currently open to traffic, and bicyclists do not have a designated bike lane or pathway. Further, the current sidewalk configuration of the nearby intersection of Flower St. and Adams Blvd. is oddly configured and is not user-friendly.	Yes, the proposed Build Alternative would provide improvements in safety for pedestrians, mobility challenged individuals, bicyclists, public transportation users and drivers. This will be accomplished by re-designing Figueroa Way to encourage the safe travel of pedestrians as well as bicyclists.
	Mobility (continued)	<b>Goal M4:</b> An efficient multimodal transportation system that serves the needs of all residents.	No, the existing condition would remain which does not provide a transportation system that supports efficient multimodal transportation system that would serve all users. Further, the No-Build Alternative will not resolve the bottleneck intersections. Safe multi-modal access is not currently available on Figueroa Way where there is a potential for vehicle, pedestrian, and bicycle conflicts.	Yes, the transportation system will be improved as a result of this project because the proposed Build Alternative would avoid the bottleneck intersections at Flower St. /Adams Blvd. & NB I-110 HOT off-ramp to Adams Blvd. by connecting the HOT lane traffic to Figueroa St. Improved multi-modal access is anticipated as a result of the proposed Build Alternative. Members of the community are likely to experience improved access regardless of the method of transportation they choose because of the incorporation of avoidance, minimization and/or mitigation measures. Please refer to the Traffic & Transportation/Pedestrian and Bicycle Facilities section in this document for more details.

# *I-110 Flyover Project*

Plan/Programs	Element	Relevant Goals/Policies/Objectives	Consistent with No-Build Alternative 1?	Consistent with Build Alternative 2?
Southeast Los Angeles Community Plan	Circulation	<b>Goal M1:</b> A diverse and multi-functional system of streets that balances the needs of pedestrians, bicyclists, transit users, mobility-challenged persons and vehicles while providing sufficient mobility options for the existing and future users of the street system.	No, existing condition would remain which does not accommodate the current traffic demand or provide safe access to the area for pedestrians, bicyclists, transit users, and mobility challenged persons and vehicles. The current sidewalk configuration near Flower St. and Adams Blvd. is confusing and not user-friendly. There is no designated bike lane/pathway to ensure the separation and safety of pedestrians or bicyclists on Figueroa Way.	Yes, the proposed Build Alternative would help provide all users with sufficient mobility options for existing and future needs. The project would also provide improvements in safety for pedestrians, mobility challenged individuals, bicyclists, public transportation users and drivers. A reduction in congestion is anticipated as a result of the proposed Build Alternative. The reduction in traffic congestion will potentially reduce traffic accidents at the traffic study locations. Refer to section 2.1.8 in this document for more details.
		<b>Goal M2:</b> A circulation system that supports successful neighborhood commercial areas by providing multi-modal access, streets that accommodate public open space and gathering places.	No, the existing condition would remain which does not provide a circulation system that supports successful neighborhood commercial areas by providing multi-modal access or resolve the bottleneck intersections, which hinders access to commercial areas. Safe multi-modal access is not currently available on Figueroa Way where there is a potential for vehicle, pedestrian, and bicycle conflicts.	Yes, circulation will be improved as a result of this project because the proposed build alternative would avoid the bottleneck intersections at Flower St. /Adams Blvd. & NB I-110 HOT off-ramp to Adams Blvd. by connecting the HOT lane traffic to Figueroa St. Improved multi-modal access is anticipated as a result of the proposed build alternative. Members of the community are likely to experience improved access regardless of the method of transportation they choose because of the incorporation of avoidance, minimization and/or mitigation measures. Please refer to the Traffic & Transportation/Pedestrian and Bicycle Facilities section 2.1.8 in this document for more details.

*I-110 Flyover Project*

Plan/Programs	Element	Relevant Goals/Policies/Objectives	Consistent with No-Build Alternative 1?	Consistent with Build Alternative 2?
Southeast Los Angeles Community Plan (continued)	Circulation (continued)	<b>Goal M3:</b> A walkable community that is universally accessible, safe, pleasant, convenient, and contains an integrated pedestrian system that reduces vehicular conflicts, promotes walking and provides links within the community and to surrounding communities.	No, the existing condition would remain which does not accommodate the safe travel of pedestrians through Figueroa Way, which is a common short cut by community to access the surrounding community. Figueroa Way is currently open to traffic, and bicyclists. Further, the current sidewalk configuration of the nearby intersection of Flower St. and Adams Blvd. are oddly configured and is not user-friendly.	Yes, with the implementation of Mitigation P&B-1 access to the proposed build alternative will encourage pedestrians to walk through Figueroa Way but remain safe and reduce the likelihood of vehicular/bicycle/pedestrian conflicts by clearly designating pedestrian and bicycle areas. Further, Figueroa Way will be closed to vehicular traffic which will enhance safety.
	Circulation (continued)	<b>Goal M7:</b> A network of streets, highways, and freeways that supports existing and planned land uses, and provides improved motorized vehicle mobility throughout Southeast Los Angeles.	No, existing condition would remain which would not provide improved motorized vehicle mobility throughout Southeast Los Angeles.	Yes, the proposed Build Alternative will help support existing and planned land uses and provides improved motorized vehicle mobility throughout Southeast Los Angeles by moving traffic away from bottleneck intersections, and improving safety of a known concentrated accident area. Furthermore, the reduction in traffic congestion will potentially reduce traffic accidents at the study locations. Refer to the traffic section in this document for additional details. Also, HOT lanes users would save on average five to ten minutes of travel time during peak hours. Consequently, the traffic travel time on local streets will potentially improve by one to two minutes during peak hours.



# *I-110 Flyover Project*

Plan/Programs	Element	Relevant Goals/Policies/Objectives	Consistent with No-Build Alternative 1?	Consistent with Build Alternative 2?
South Los Angeles Community Plan	Circulation	<b>Goal M1:</b> A street system that is diverse and balances the needs of pedestrians, bicyclists, transit users, mobility-challenged persons, and vehicles, while providing sufficient mobility and abundant access options for the existing and future users of the street system.	No, existing condition would remain which does not accommodate the current traffic demand or provide safe access to the area for pedestrians, bicyclists, transit users, and mobility challenged persons and vehicles. The current side walk configuration near Flower St. and Adams Blvd. is confusing and not user friendly. There is no designated bike lane/pathway to ensure the separation and safety of pedestrians and bicyclists.	Yes, the proposed Build Alternative would provide all users with sufficient mobility options for existing and future needs. The project would also provide improvements in safety for pedestrians, mobility challenged individuals, bicyclists, public transportation users and drivers. A reduction in congestion is anticipated as a result of the proposed build alternative. The reduction in traffic congestion will potentially reduce traffic accidents at the traffic study locations (refer to the Traffic & Transportation/Pedestrian & Bicycle facility section 2.1.8 in this document for more details).
		<b>Goal M2:</b> A circulation system that supports successful neighborhood commercial areas by providing multi-modal access, streets that accommodate public open space and gathering places.	No, existing condition would remain which does not accommodate the current traffic demand or resolve the bottleneck intersections, which hinders access to commercial areas. Safe multi-modal access is not currently available.	Yes, circulation will be improved as a result of this project because the proposed Build Alternative would avoid the bottleneck intersections at Flower St. /Adams Blvd. & NB I-110 HOT off-ramp to Adams Blvd. by connecting the HOT lane traffic to Figueroa St. Improved multi-modal access is anticipated as a result of the proposed Build Alternative. Members of the community are likely to experience improved access regardless of the method of transportation they choose because of the incorporation of avoidance, minimization and/or mitigation measures. Please refer to the Traffic & Transportation/Pedestrian and Bicycle Facilities section 2.1.8 in this document for more details.

*I-110 Flyover Project*

Plan/Programs	Element	Relevant Goals/Policies/Objectives	Consistent with No-Build Alternative 1?	Consistent with Build Alternative 2?
South Los Angeles Community Plan (continued)	Circulation (continued)	<b>Goal M3:</b> Throughout the community, a street environment that is pleasant, universally accessible, safe, and convenient for pedestrians.	No, existing condition would remain which does not accommodate the safe travel of pedestrians through Figueroa Way, which is a common short cut by community to access the surrounding community. Figueroa Way is currently open to traffic, and bicyclists. Further, the current sidewalk configuration of the nearby intersection of Flower St. and Adams Blvd. is oddly configured and is not user-friendly.	Yes, access to the proposed Build Alternative will encourage pedestrians use of Figueroa Way and reduce the likelihood of vehicular/bicycle /pedestrian conflicts by clearly designating pedestrian and bicycle areas. Further, Figueroa Way will be closed to vehicular traffic which will enhance safety.
		<b>Goal M7:</b> A network of streets, highways, and freeways that supports existing and planned land uses, and provides improved motorized vehicle mobility throughout the South Los Angeles Community Plan Area, particularly on congested corridors.	No, existing condition would remain which would not provide improved motorized vehicle mobility throughout South Los Angeles.	Yes, the proposed Build Alternative will help support existing and planned land uses and provides improved motorized vehicle mobility throughout South Los Angeles by moving traffic away from bottleneck intersections, and improving safety of a known concentrated accident area. Furthermore, the reduction in traffic congestion will potentially reduce traffic accidents at the study locations. Refer to the traffic section in this document for additional details. Also, HOT lanes users would save on average five to ten minutes of travel time during peak hours. Consequently, the traffic travel time on local streets will potentially improve by one to two minutes during peak hours.

## ***Environmental Consequences***

**Alternative 1 (No-Build Alternative):** Alternative 1 does not improve the transportation infrastructure, nor does it improve circulation. Adams Blvd. is the terminus of the HOT lane facility, and in order for HOT lanes users to complete their trip to downtown Los Angeles, they must navigate two congested signalized intersections (the I-110 off-ramp/Adams Blvd. and Adams Blvd./Flower St.) in order to reach Figueroa St. a main thoroughfare that traverses Downtown Los Angeles. Therefore, the current condition does not improve the transportation infrastructure or traffic circulation. The current condition is a safety concern because of the higher than average accident rate.

The No-Build Alternative is not consistent with some state, regional, and local plans and programs. The goals and policies of the plans and programs discussed earlier in this section promote improvement in the transportation infrastructure and improving traffic circulation. If Alternative 1 is chosen, than mitigation measure Consistency (CONS)-1 would be recommended.

**Alternative 2 (Proposed Build Alternative):** This build alternative is consistent with state, regional, and local plans and programs and/or will be consistent with the incorporation of the proper avoidance, minimization and/or mitigation measure. Relevant goals and policies have been considered and it was found that the goals, objectives, and policies of the plans and programs discussed earlier in this section promote improvement in the transportation infrastructure, improve traffic circulation, accommodate many modes of transportation, improve air quality, reduce construction noise on nearby land uses by minimizing any potential impacts, support economic growth, accommodate existing and future residents, businesses and visitors, and other similar goals and policies.

According to a micro simulation model prepared by Caltrans District 7 Office of Traffic Investigations, current HOT lanes users would likely save on average five to ten minutes of travel time during peak hours. Consequently, the traffic travel time on local streets will potentially improve by one to two minutes during peak hours. Furthermore, the reduction in traffic congestion will potentially reduce traffic accidents at the study locations (NB I-110 off-ramp at Adams Blvd., Flower St. at Adams Blvd., and Figueroa St. at Adams Blvd.). Refer to the Traffic & Transportation section 2.1.8 in this document for more details.

Alternative 2 will improve air quality in the future. Caltrans Office of Environmental Engineering (Air Quality Branch) has evaluated the proposed Build Alternative for operational and temporary construction impacts on the ambient air quality in the project vicinity. The carbon monoxide (CO) hot spot analysis demonstrates that the project meets conformity requirements. The Southern California Association of Governments' (SCAG) Transportation Conformity Working Group has concurred that the project is not an air quality concern for Particulate Matter (PM) 10 and PM2.5. There would be a decrease in emissions of some Mobile Source Air Toxics (MSAT) such as diesel particulate matters in 2023 and 2040 when compared to the base year conditions. MSAT emissions would likely be further reduced in the future due to implementation of future vehicle and fuel regulations by the Air Resource Board and the Environmental Protection Agency. Further, noise abatement will be implemented during construction to ensure the reduction of construction noise on nearby land uses.

## *I-110 Flyover Project*

The economic vitality and wellbeing of the greater Los Angeles region depends upon the safe and timely transport of goods as well as people. I-110/SR-110 from the I-10 to State Route 1 is included in the draft Federal Primary Freight Network and the Highway Freight Network in the 2014 California Freight Mobility Plan. I-110/SR-110 serves as a part of the Intermodal Corridors of Economic Significance (ICES). Alternative 2 will allow vehicles to bypass known bottleneck intersections, reduce potential accidents, and improve travel times by constructing this elevated structure. The Build Alternative would support economic growth, and accommodate existing and future residents, businesses and visitors.

### ***Avoidance, Minimization, and/or Mitigation Measures***

**Mitigation CONS-1:** Caltrans would request that the responsible party of the plan or program (City of Los Angeles/County of Los Angeles) to modify the inconsistent policy, goal, and/or objective. The responsible party may choose not to change the inconsistent policy, goal, and/or objective, which would cause an impact to remain.

### **2.1.3 Parks and Recreational Facilities**

#### ***Affected Environment***

According to the Community Impact Assessment (August 2015) and the Los Angeles Equity Atlas Opportunity Mapped (2014), Los Angeles County has 136 acres of park land and open space per 1,000 residents. An estimated 70% of open space in the County is located in the San Gabriel Mountains.

#### **South Los Angeles Community Plan Area**

Recreation and park services in the South Los Angeles Community Plan Area are primarily provided by the City of Los Angeles Recreation and Parks Department (RAP). There are four types of parks: mini, neighborhood, community, and regional parks. Mini parks, sometimes referred to as pocket parks, provide small spaces for limited types of recreational activities to an immediate neighborhood. The Los Angeles Recreation and Parks Department operates a total of 33 parks and/or recreational facilities covering approximately 246 acres in the South Los Angeles Community Plan Area. Of the 33 parks/recreational facilities, Little Green Acres Park-Community Garden, located at 104<sup>th</sup> St. and Vermont Ave., is the only community park, and Exposition Park, located at 3980 South Menlo Ave., is the only regional park. The remaining 31 parks are neighborhood parks. The Los Angeles County Department of Parks and Recreation also owns and operates the Jesse Owens Community Regional Park at 9621 South Western Ave. At 33.19 acres this park is great in size and is completely within the boundaries of the South Los Angeles Community Plan Area.

#### **Southeast Los Angeles Community Plan Area**

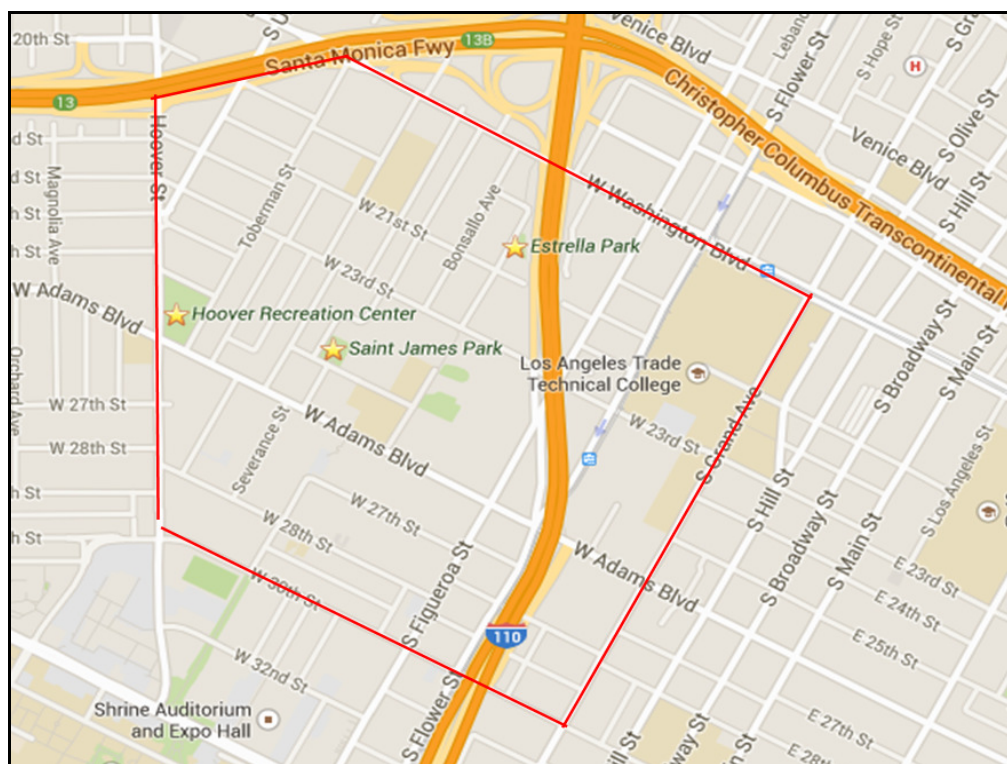
A total of 26 parks and recreational facilities (approximately 142 acres) are located in the Southeast Los Angeles Community Plan Area. Of the 26 facilities, 23 are neighborhood parks and 3 are community parks. To address the need for additional park space, the Recreation and Parks Department has proposed the development of 10 pocket parks in the Community Plan Area. The first four pocket parks proposed in Southeast Los Angeles are located at 4916 S. McKinley Ave., 670 E. 49th St., 139 E. 61st St., and 207 E. 111th Place. The new Grisby Pocket Park is the result of a partnership between the Watts Neighborhood Council and the Recreation and Parks Department. The park features a community porch and a granite walking track surrounding citrus trees and landscaping. In addition, the Los Angeles County Department of Parks and Recreation operates two regional parks which are located partially within the Southeast Los Angeles Community Plan Area. The Earvin “Magic” Johnson Recreation Area, located along the southern Community Plan boundary and the Ted Watkins Memorial Park, located in Watts, provides approximately 112 and 27 acres of parkland, respectively. Figure 9 shows parks and recreational facilities within the project study area.

## *I-110 Flyover Project*

The following are a list of parks and recreation centers in the study area, and a description of features of the park/recreational area:

- Saint James Park, Adams Blvd. and Severance St., Los Angeles, CA 90007  
*Features include:* Children's play area
- Hoover Recreation Center 1010 W. 25th St., Los Angeles, CA 90007  
*Features include:* An auditorium equipped with a state of the art studio floor and stage, 3 meeting rooms, a full kitchen, a private outdoor courtyard, children's play area, basketball courts, outdoor fitness equipment, walking/running paths, picnic tables, and barbecue pits
- Estrella Park, 1956 Estrella Ave., Los Angeles, CA 90007  
*Features include:* Children's play area. The Neighborhood Land Trust has organized a series of ongoing programs for youth and adults including yoga, kickboxing, aerobics, mural design, photography and creative writing classes.

**Figure 9: Parks and Recreational Facilities in the Study Area**



Source: Google Map

### ***Environmental Consequences***

**Alternative 1 (No-Build Alternative):** The existing condition would remain; therefore, no impact would occur.

**Alternative 2 (Build Alternative):** No construction and/or operational impacts are anticipated as a result of the proposed Build Alternative. The three parks that are located in the project study area are located far enough from the construction site that the parks will not be directly or indirectly impacted. Therefore, parks and recreational facilities are not anticipated to be used and/or impacted permanently or temporarily by the proposed Build Alternative.

### ***Avoidance, Minimization, and/or Mitigation Measures***

No avoidance, minimization and or mitigation measures are required because no parks or recreational facilities will be impacted by the project.

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## **2.1.4 Growth**

### ***Regulatory Setting***

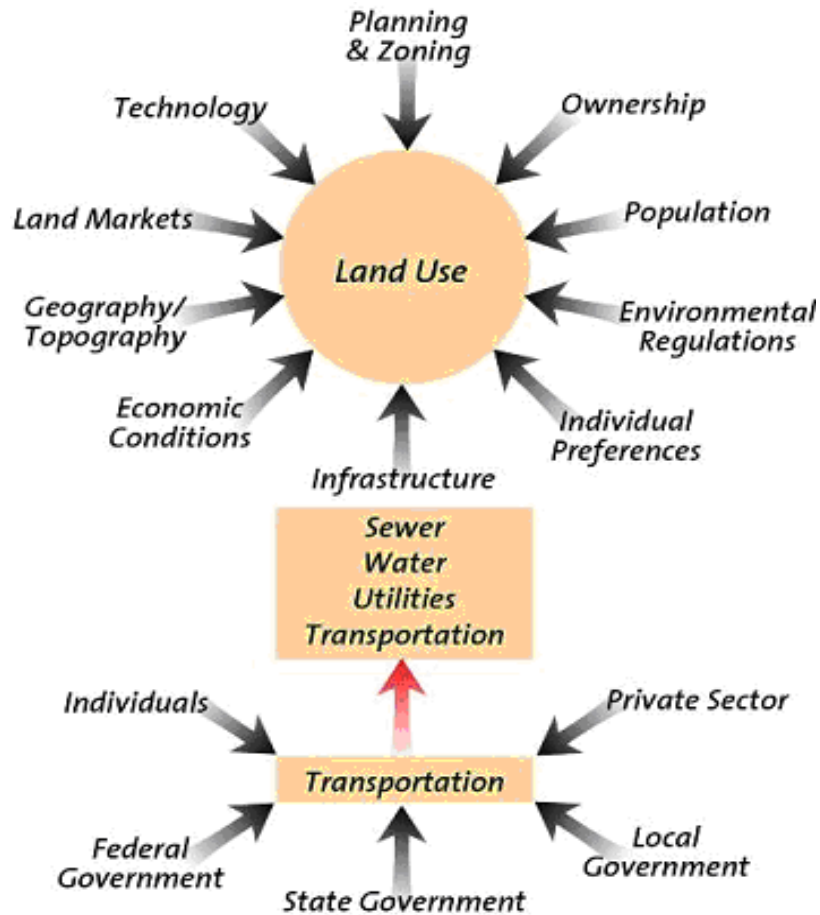
The Council on Environmental Quality (CEQ) regulations, which established the steps necessary to comply with the National Environmental Policy Act (NEPA) of 1969, require evaluation of the potential environmental effects of all proposed federal activities and programs. This provision includes a requirement to examine indirect consequences which may occur in areas beyond the immediate influence of a proposed action and at some time in the future. The CEQ regulations (40 Code of Federal Regulations [CFR] 1508.8) refer to these consequences as indirect impacts. Indirect impacts may include changes in land use, economic vitality, and population density which are all elements of growth.

The California Environmental Quality Act (CEQA) also requires the analysis of a project's potential to induce growth. The CEQA guidelines (Section 15126.2[d]) require that environmental documents "...discuss the ways in which the proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment..."

### ***Affected Environment***

Growth inducement is defined as the relationship between the proposed transportation project and growth within the project study area. Many factors influence land use and development in an area (refer to Figure 10 for factors influencing land use and development), such as population and economic growth, desirability of certain locations, the costs and availability of developable land, physical and regulatory constraints, transportation, and the costs of sewer and water services all strongly influence where, when, and what type of development takes place. Many of these factors also influence the policies and decisions associated with land use and growth.

**Figure 10: Factors Influencing Land Use and Development**



Source: FHWA May 1999. *An Overview: Land Use and Economic Development in Statewide Transportation Planning*.

According to The Southern California Association of Governments (SCAG) Regional Transportation Plan (RTP), the Southern California Region is running out of room for low density developments and geographical features such as the Pacific Ocean to the west and mountains to the east present natural borders to continue urban spread. In addition to spatial constraints, environmental concerns and transportation limitations are presenting ever-increasing challenges to the continued growth in the area. These, among other factors, are leading to changing growth policy throughout the Los Angeles area where growth is being focused inward and toward a sustainable future.

According to the County's General Plan, policy is based on building a sustainable future through "smart growth" practices. Because future growth will deal more with redevelopment of existing urban areas, the County's General Plan includes a range of strategies to deal with existing growth challenges such as infrastructure, economic development, public health and safety, and natural resources. Within the project study area, transit-oriented and economic development strategies are considered key in revitalizing existing neighborhoods. The City's policies are geared toward accommodating growth. The focus of these policies is directing growth in a way that will support economic development, minimize environmental impacts, and enhance quality of life. The City's primary strategies include transit-oriented development, sustainable infill development, and infrastructure investments.

SCAG has forecasted growth in the City of Los Angeles including population growth, household growth, and employment growth. During this 12-year period, the City's population growth rate of 3.5 percent was lower than the Los Angeles County rate of 3.8 percent. In Los Angeles County 38.7% of the total population is in the City of Los Angeles. Table 7 focuses on the 2012 draft regional transportation plan growth forecast (which are the most current estimates) for the City of Los Angeles, which predicts that in 2035 the population will be 4,320,600 with 1,626,600 households and employment of 1,906,800. Figure 11 shows population growth in 2000-2012 in the City of Los Angeles. In 2000, the population was 3,694,742 and in 2012 it was 3,825,297.

**Table 7: 2012 Draft Regional Transportation Plan Growth Forecast for the City of Los Angeles**

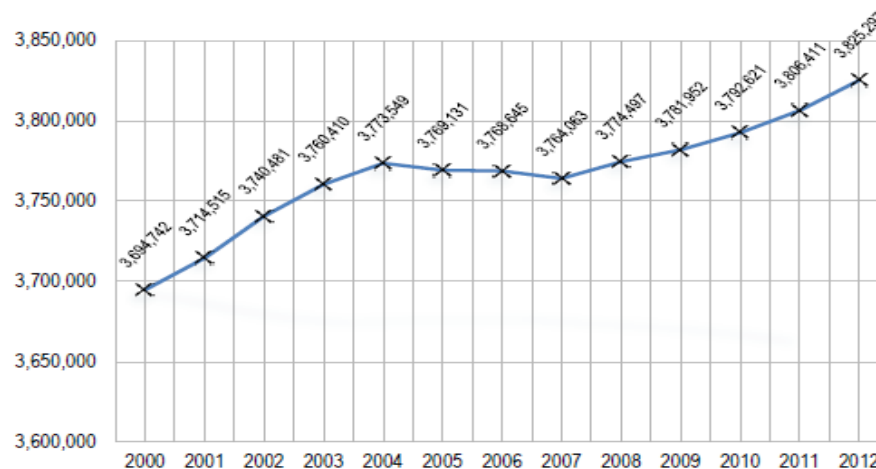
Year	Populations	Households	Employment
2008	3,770,500	1,309,900	1,735,200
2020	3,991,700	1,455,700	1,817,700
2035	4,320,600	1,626,600	1,906,800

Source: SCAG Growth Forecast

**Figure 11: City of Los Angeles Population Growth in 2000-2012**

### ***Population Growth***

**Population: 2000 - 2012**



Sources: California Department of Finance, E-5, 2012

Source: SCAG City of Los Angeles Community Profile

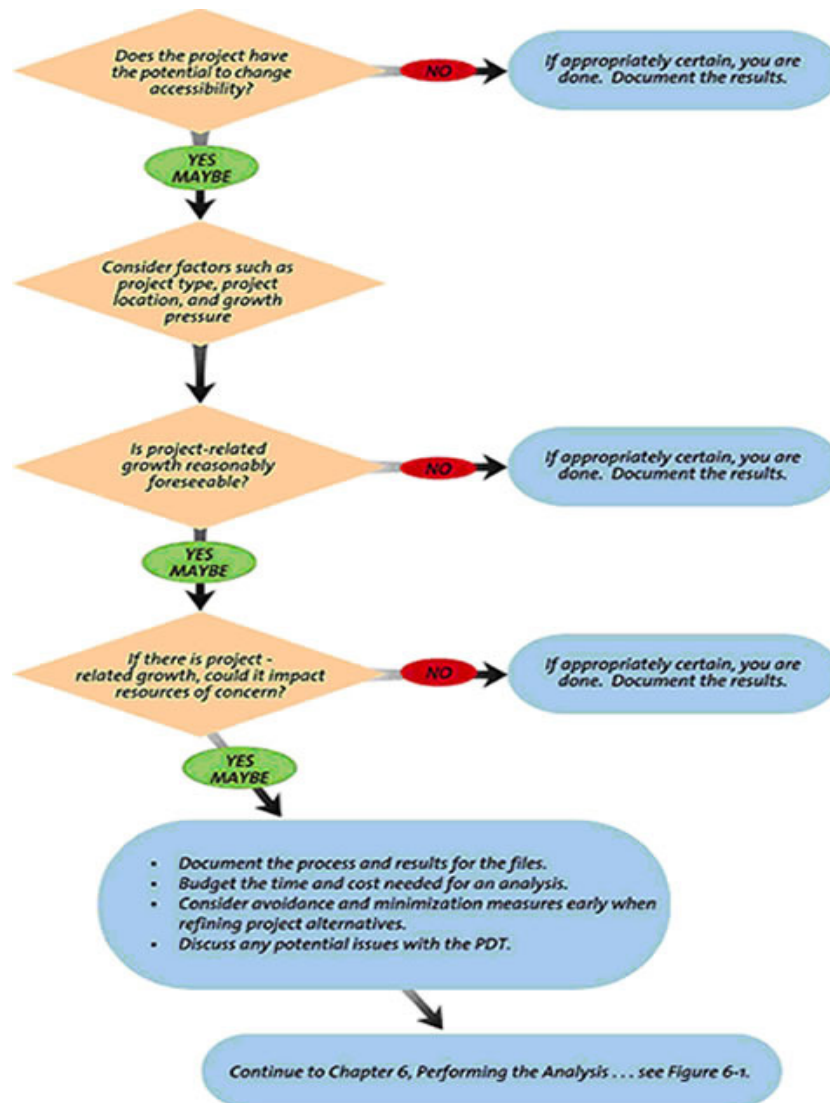
## ***Environmental Consequences***

### **First-Cut Screening Analysis**

The proposed project is designed to improve circulation and mobility in the proposed study area. The proposed Build Alternative is also designed to avoid the bottleneck intersections at Flower St. and Adams Blvd. and NB I-110 HOT off-ramp to Adams Blvd., connecting the HOT lane traffic to Figueroa St. The project intends to help meet current and future traffic demands. Therefore, the proposed project would accommodate existing growth trends rather than induce new growth. Figure 12 shows the steps of the first-cut screening analysis which helps answer the following questions:

- To what extent would travel times, travel cost, or accessibility to employment, shopping, and other destinations be changed? Would this change affect travel behavior, trip patterns or the attractiveness of some areas to development over others?
- To what extent would change in accessibility affect growth or land use change its location, rate, type, or amount?
- To what extent would resources of concern be affected by this growth or land use change?

**Figure 12: The First Cut Screening Process**



Growth-inducing impacts are often secondary impacts resulting from 1) shifts in population growth or distribution, 2) fostering economic growth, or 3) removing obstacles to growth such as providing access to an area that was previously inaccessible.

**Alternative 1 (No-Build Alternative):** The existing condition would remain; therefore, no impact would occur.

**Alternative 2 (Build Alternative):**

**Accessibility**

Although the proposed project would add a flyover structure, it would not add new access in an area where none existed previously; thus, the potential for growth due to the provision of new access is extremely low. The proposed project would not affect accessibility to employment or shopping, nor would it attract new businesses and residents. The proposed project would provide some improvement in safety and congestion. Given the urban and built-out nature of surrounding development, as well as the purpose of the project, the project would not improve accessibility in areas not previously served by a transportation facility.

**Land Use**

The project study area is built out which is not indicative of substantial new growth in the area. The pattern and rate of population and housing growth following implementation of the proposed project would be expected to remain consistent with the population anticipated by existing plans for the area. Furthermore, no new or expanded infrastructure, housing, or other similar permanent physical changes to the environment would be necessary as an indirect consequence of the proposed project. However, proximity of the University of Southern California campus and potential development on their property along with other potential developments mentioned in the section 2.1.1 Table 3 List of Potential Projects within/near the South & Southeast Los Angeles Community Plans Study Areas. The current condition along with potential development increases the need for the proposed Build Alternative which is necessary to correct the existing condition in the area and improve traffic flow.

This analysis does not continue on past the first cut screening process because this project does not have the potential to change accessibility which ends the growth analysis process as seen in Figure 12: The First Cut Screening Process. Based on the first-cut screening analysis presented earlier, the proposed project would not be growth-inducing nor have growth-related impacts. No construction nor operational growth-related impacts are anticipated as a result of the proposed Build Alternative. No additional analysis related to growth is warranted.

***Avoidance, Minimization, and/or Mitigation Measures***

No avoidance, minimization, and/or mitigation measures are required because growth related effects are not anticipated as a result of this project.

## **2.1.5 Community Impacts**

### **Community Character and Cohesion**

#### ***Regulatory Setting***

The National Environmental Policy Act of 1969 (NEPA), as amended, established that the federal government use all practicable means to ensure that all Americans have safe, healthful, productive, and aesthetically and culturally pleasing surroundings (42 United States Code [USC] 4331[b][2]). The Federal Highway Administration in its implementation of NEPA (23 United States Code [USC] 109[h]) directs that final decisions on projects are to be made in the best overall public interest. This requires taking into account adverse environmental impacts, such as destruction or disruption of human-made resources, community cohesion, and the availability of public facilities and services.

Under the California Environmental Quality Act, an economic or social change by itself is not to be considered a significant effect on the environment. However, if a social or economic change is related to a physical change, then social or economic change may be considered in determining whether the physical change is significant. Since this project would result in physical change to the environment, it is appropriate to consider changes to community character and cohesion in assessing the significance of the project's effects.

#### ***Affected Environment***

According to the U.S. Census, in 2013, Los Angeles County had a population of 10,017,068 residents. According to the Department of Finance, the County's population alone would make it the eighth largest state in the nation. The White population accounted for approximately 27.2% of the population. The Black/African American population accounted for 9.2% of the population, Hispanics or Latino accounted for 48.3% of the population, and the Asian population and Two or More Races population accounted for less than 17.50% of the population, collectively.

In 2013 the City of Los Angeles' population was 3,884,307. In 2013, the City of Los Angeles was predominantly Hispanic or Latino, which accounted for approximately 49 % of the population. The Black/African American population accounted for 8.6% of the population, the White populations accounted for 28.2% of the population, and the Asian population and Two or More Races population accounted for 13.3.% of the population, collectively. Table 8 lists these percentages for the City and County.

**Table 8: 2013 Racial and Ethnic Characteristics of the City and County of Los Angeles**

<b>Race/Ethnicity</b>	<b>City of Los Angeles</b>	<b>Los Angeles County</b>
White	28.2%	27.2%
Black/African American	8.6%	9.2%
American Indian/Alaska Native	0.1%	1.5%
Asian	11.2%	14.6%
Native Hawaiian/Other Pacific Islander	0.2%	0.4%
Two or More Races	2.1%	2.9%
Hispanic or Latino	49.3%	48.3%

Source: US Census (October, 2014) and <http://www.city-data.com/city/Los-Angeles-California.html>

According to the US Census, the reason the percentages in Table 8 add up to more than 100 percent is because Hispanic origin is not a race, and persons of Hispanic origin may be of any race.

Hispanics or Latinos are those people who classified themselves in one of the specific Spanish, Hispanic, or Latino categories listed on the Census 2010 questionnaire - "Mexican," "Puerto Rican", or "Cuban" as well as those who indicate that they are "another Hispanic, Latino, or Spanish origin." People who do not identify with one of the specific origins listed on the questionnaire but indicate that they are "another Hispanic, Latino, or Spanish origin" are those whose origins are from Spain, the Spanish-speaking countries of Central or South America, or the Dominican Republic.

The terms "Hispanic," "Latino," and "Spanish" are used interchangeably. Origin can be viewed as the heritage, nationality group, lineage, or country of birth of the person or the person's parents or ancestors before their arrival in the United States. People who identify their origin as Spanish, Hispanic, or Latino may be of any race. Thus, the percent Hispanic should not be added to percentages for racial categories. Non-Hispanic White Persons are those who responded "No, not Spanish/Hispanic/Latino" and who reported "White" as their only entry in the race question.

The 2010 data on the Hispanic or Latino population were derived from answers to a question that was asked of all people in Census 2010. Estimates for States and Counties for years after 2010 are developed using a cohort-component method whereby each component of population change - births, deaths, domestic migration, and international migration - is estimated separately for each birth cohort by sex, race, and Hispanic origin.

## **Age**

According to the U.S. Census in 2013, Los Angeles County the population was almost 6.5% under the age of 5, approximately 23% persons under 18 years of age and almost 12% were persons 65 years of age and over. As for the City of Los Angeles, the U.S. Census indicates that in 2010 the City of Los Angeles' population was approximately 23% under the age of 18, and about 11% were 65 years of age or older. This is the most recent data to date. Table 9 shows the age characteristics of the City as well as the County of Los Angeles.



**Table 9: Age Characteristics of the City and County of Los Angeles**

Age	City of Los Angeles (2010)	Los Angeles County (2013)
Under 5 years of age	6.6%	6.4%
Under 18 years of age	23.1%	23.2%
65 years of age and over	10.5 %	11.9%

Source: US Census (October 2014)

**Housing**

According to the U.S. Census in 2013, there were 3,462,202 units in Los Angeles County. Further, the homeownership rate between 2008 through 2012 was about 47.3%. The median value of owner occupied housing units between 2008 through 2012 was \$443,900.

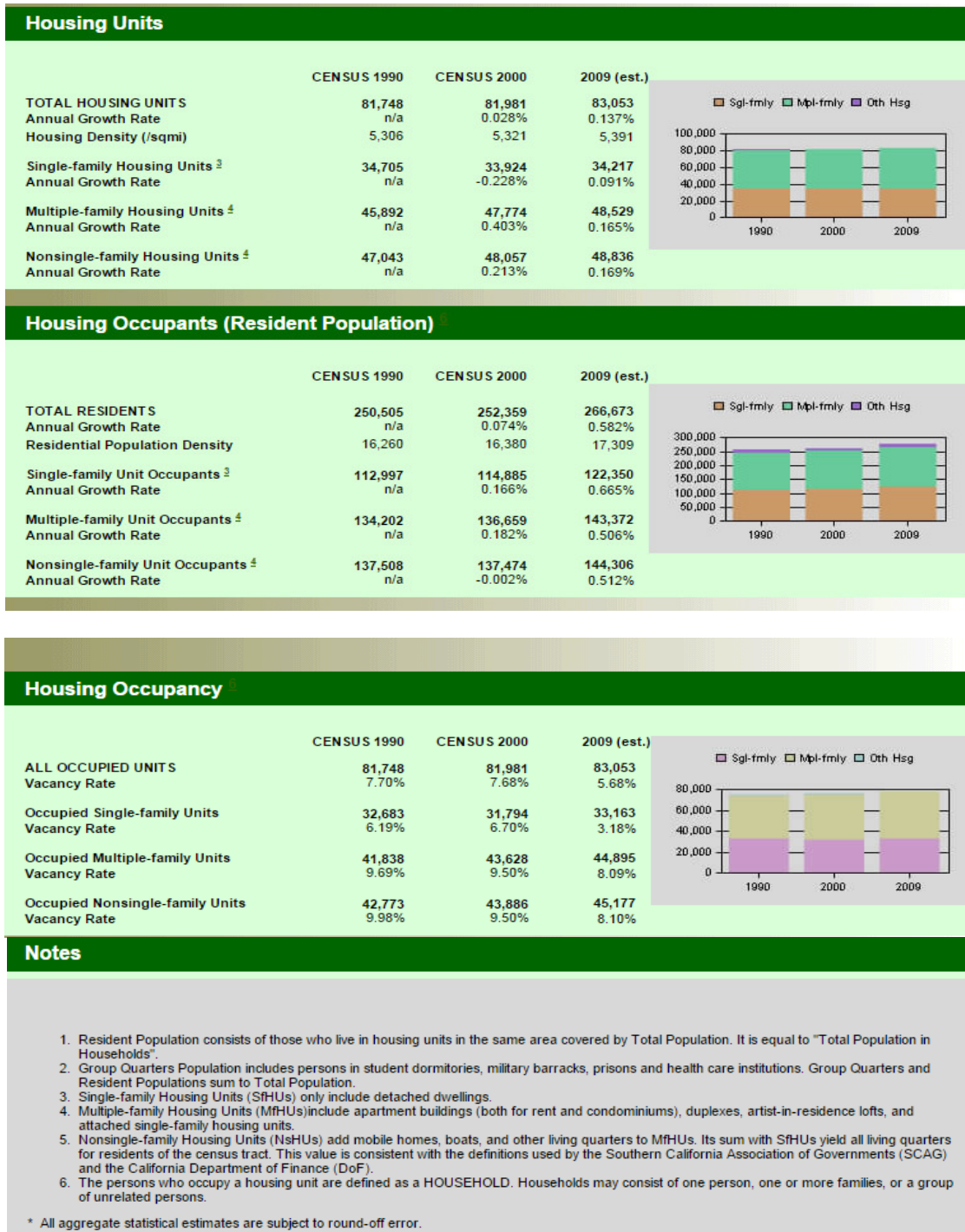
As mentioned in the U.S. Census in 2010, there were 1,413,995 housing units in the City of Los Angeles, and the homeownership rate was 38% between 2008 through 2012. Now, 54.4% of the housing units were in multi-unit structures between 2008 through 2012. The median value of owner occupied housing units between 2008 through 2012 was \$470,000. SCAG has forecasted that 40% of the 624,000 new households projected by 2035 (or 250,000 households) will need housing affordable to very low income (less than \$26,342 in 2010 dollars) and low income (\$26,343-\$42,147 in 2010 dollars).

According to SCAG's Sustainable Communities Strategy, by 2021 40% of new housing development in Los Angeles County must be affordable to low income (\$26,343-\$42,147 in 2010 dollars) or very low (less than \$26,342 in 2010 dollars) income households in order to meet the regional housing need. The City of Los Angeles uses the County definition of low and very low income.

**South Los Angeles Community Boundaries**

According to the City of Los Angeles Planning Division, in 2009 the total units were 83,053 with 34,217 single family housing units, 48,529 multiple family housing units, and 48,836 non-single family housing units in the South Los Angeles community. Further, in 2009 the total residents were 266,673 with 122,350 residents in single family units, 143,372 in multiple family units, and 144,306 in non-single family units. Also in 2009, 83,053 were occupied units with 33,163 occupying single-family units, 44,895 occupying multiple family units, 45,177 occupying non-single family units. Figure 13 compares census data for housing and housing occupancy in 1990, 2000, and 2009.

**Figure 13: South Los Angeles Housing and Resident Occupancy Populations**

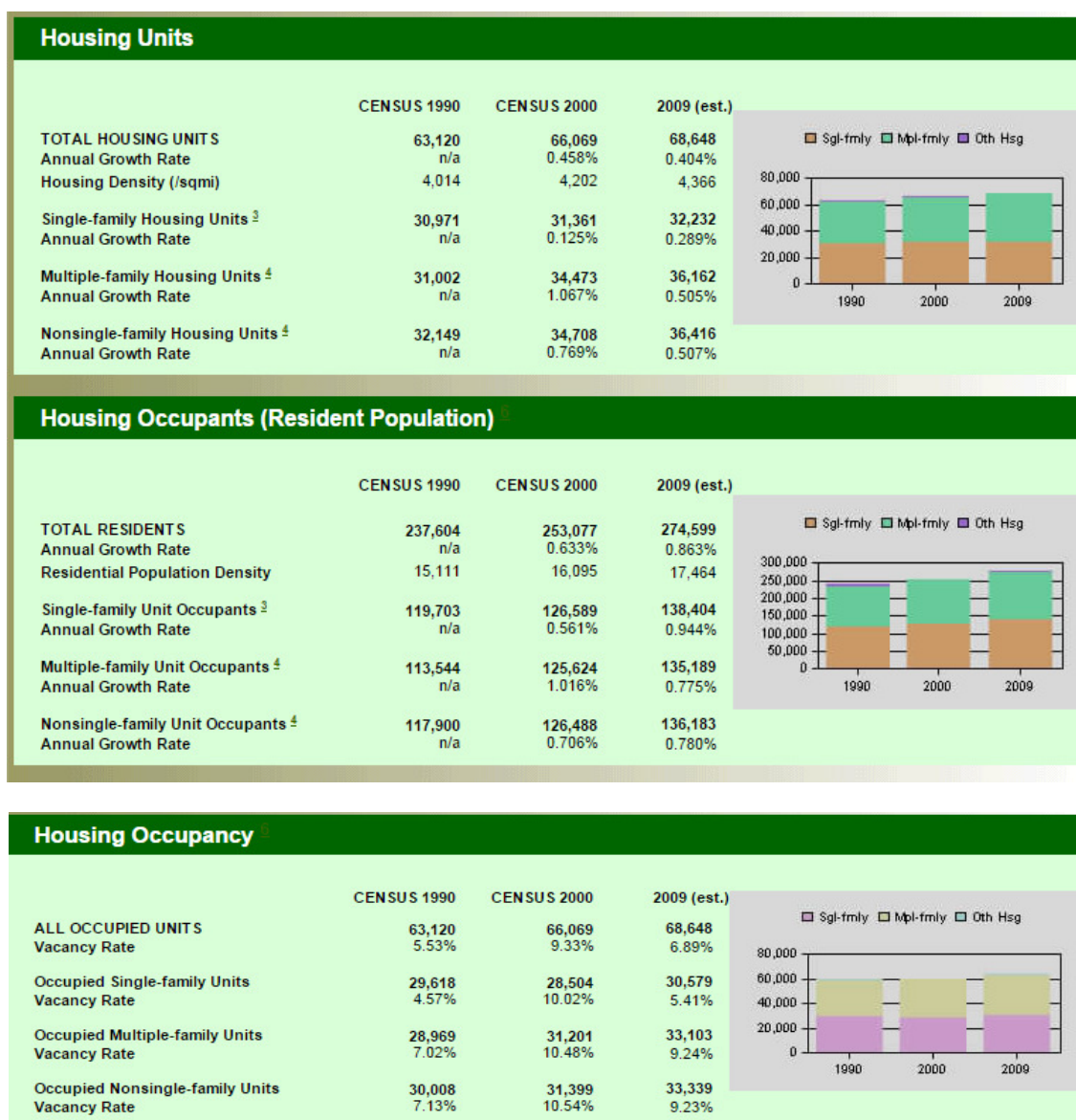


Source: Los Angeles City Planning Website <http://cityplanning.lacity.org/DRU/Loc/LocPfl.cfm?geo=CP&loc=SCL&yrr=Y09>

**Southeast Los Angeles Community Boundaries**

According to the City of Los Angeles Planning Division, in 2009 the total housing units numbered 68,648, with 32,232 single family housing units, 36,162 multiple family housing units, and 36,416 non-single family housing units in the Southeast Los Angeles community. Further, in 2009 the total residents numbered 274,599, with 138,404 residents in single family units, 135,189 in multiple family units, and 136,183 in non-single family units. Figure 14 compares census data for housing and housing occupancy in 1990, 2000, and 2009.

**Figure 14: Southeast Los Angeles Housing and Resident Occupancy Populations**



## Notes

1. Resident Population consists of those who live in housing units in the same area covered by Total Population. It is equal to "Total Population in Households".
2. Group Quarters Population includes persons in student dormitories, military barracks, prisons and health care institutions. Group Quarters and Resident Populations sum to Total Population.
3. Single-family Housing Units (SfHUs) only include detached dwellings.
4. Multiple-family Housing Units (MfHUs) include apartment buildings (both for rent and condominiums), duplexes, artist-in-residence lofts, and attached single-family housing units.
5. Nonsingle-family Housing Units (NsHUs) add mobile homes, boats, and other living quarters to MfHUs. Its sum with SfHUs yield all living quarters for residents of the census tract. This value is consistent with the definitions used by the Southern California Association of Governments (SCAG) and the California Department of Finance (DoF).
6. The persons who occupy a housing unit are defined as a HOUSEHOLD. Households may consist of one person, one or more families, or a group of unrelated persons.

\* All aggregate statistical estimates are subject to round-off error.

Source: Los Angeles City Planning Website <http://cityplanning.lacity.org/DRU/Loc/LocPfl.cfm?geo=CP&loc=SCL&yrr=Y09>

According to Mapping Los Angeles (Los Angeles Times) the following is South Los Angeles' Community Profile:

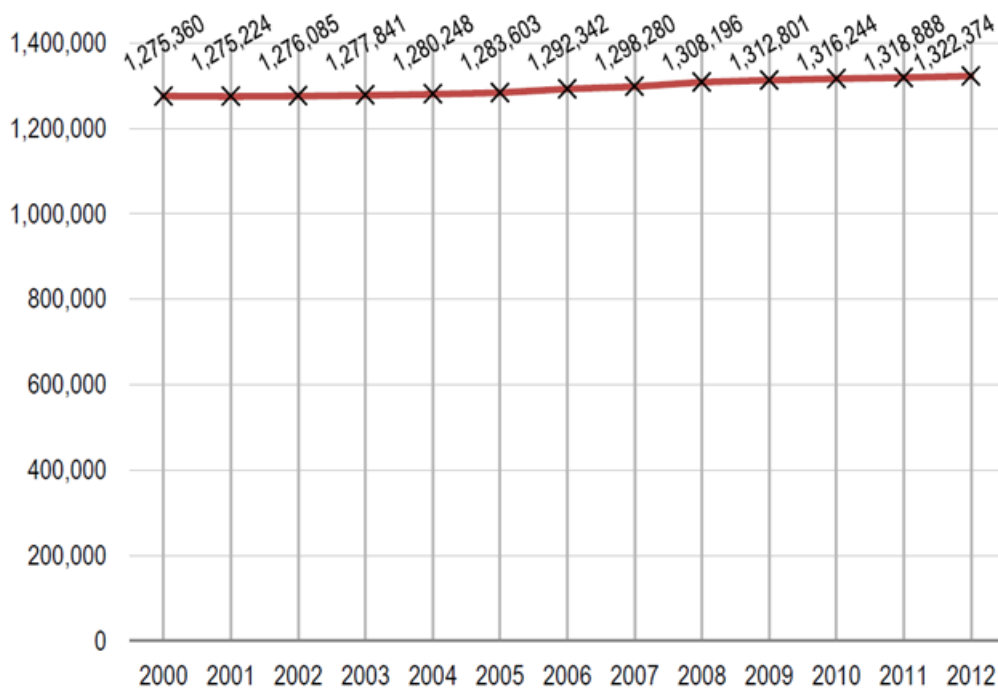
According to the U.S. Census in 2000, the population was 749,453. The most diverse neighborhood is University Park. 8.2% of the residents 25 years and older have a four-year degree. 63.1% of households are renters with University Park having the highest rental rate.

According to Mapping Los Angeles (Los Angeles Times) the following is Southeast Los Angeles' Community Profile:

According to the U.S. Census in 2000, the population was 1,190,425. 11.4% of the residents 25 years and older have a four-year degree. 46.9% of households are renters.

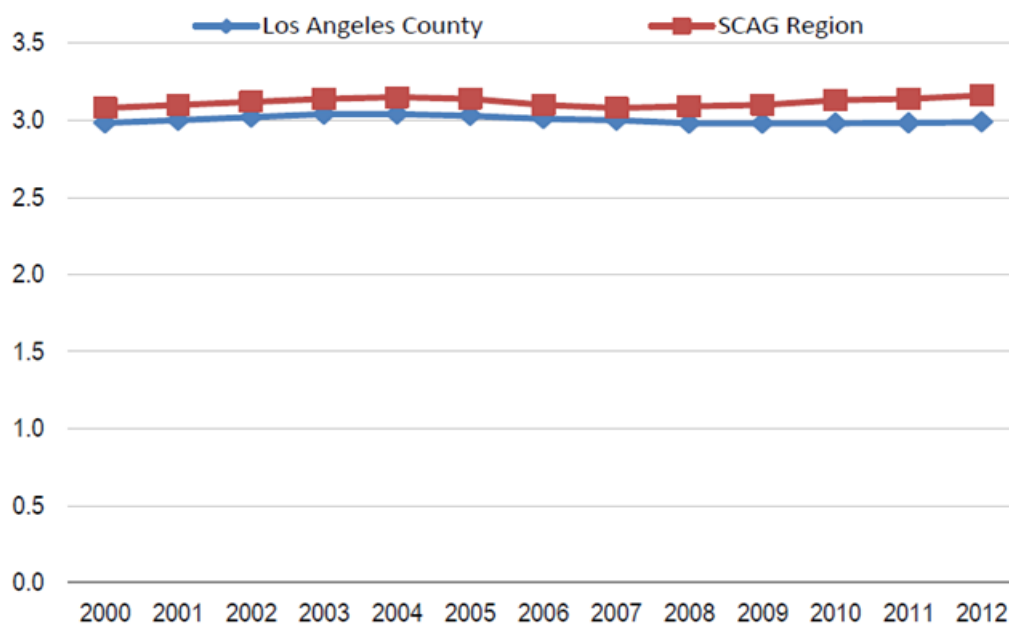
Figures 15 and 16 show that between 2000 and 2012, the total number of households in Los Angeles County increased by 115,804 units, or 3.7 percent. During this 12-year period, the County's household growth rate of 3.7 percent was lower than the SCAG region growth rate of 9 percent. 55.4 percent of SCAG Region's total number of households is in Los Angeles County. In 2012, the county's average household size was 3.0, lower than the SCAG region average of 3.2.

**Figure 15: Number of Households (Occupied Housing Units) in the City of Los Angeles 2000-2012**



Source: SCAG City of Los Angeles Community Profile

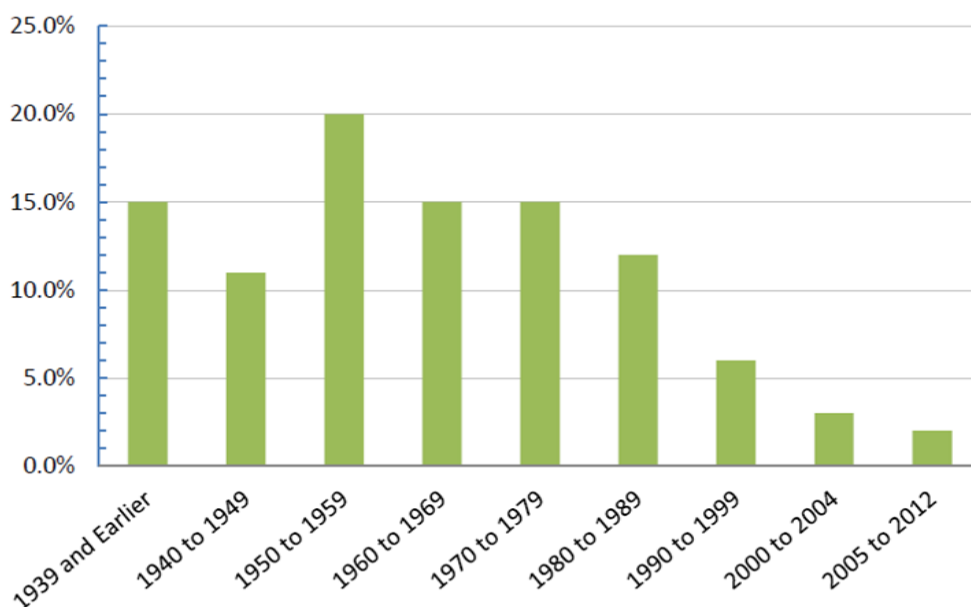
**Figure 16: Average Household Size in the City of Los Angeles 2000-2012**



Source: SCAG City of Los Angeles Community Profile

The most common housing type in the City of Los Angeles in 2012 is single family detached. 61% percent of the housing stock was built before 1970. The age of housing stock data partly reflects the local development history. Figure 17 shows the age of housing stock in the City of Los Angeles. It shows that about 20% of the housing stock was built from 1950 to 1959, and approximately 2% were built from 2005 to 2012.

**Figure 17: Age of Housing Stock in the City of Los Angeles**



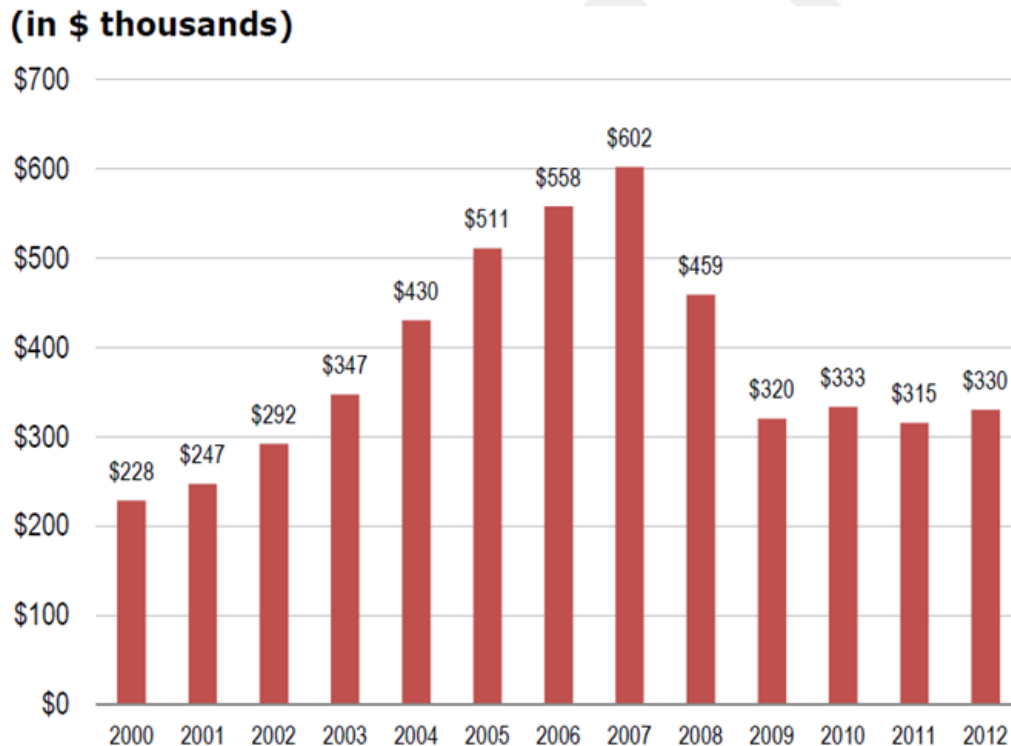
Source: SCAG City of Los Angeles Community Profile

## Property Values

Property value is a reflection of the demand for the property. The market value of the property is the value for which the property can be sold on the open market and establishes the equity that the owner has in the property. The assessed value is set by the tax assessor and is the value at which the property is taxed. A change in the assessed value would result in a proportional change in property tax on the property. Figure 18 shows the median home sale prices for existing homes in the City of Los Angeles from 2000-2012. During this range, prices were at their highest over \$600,000 in 2007 and at their lowest (approximately \$228,000) in 2000.

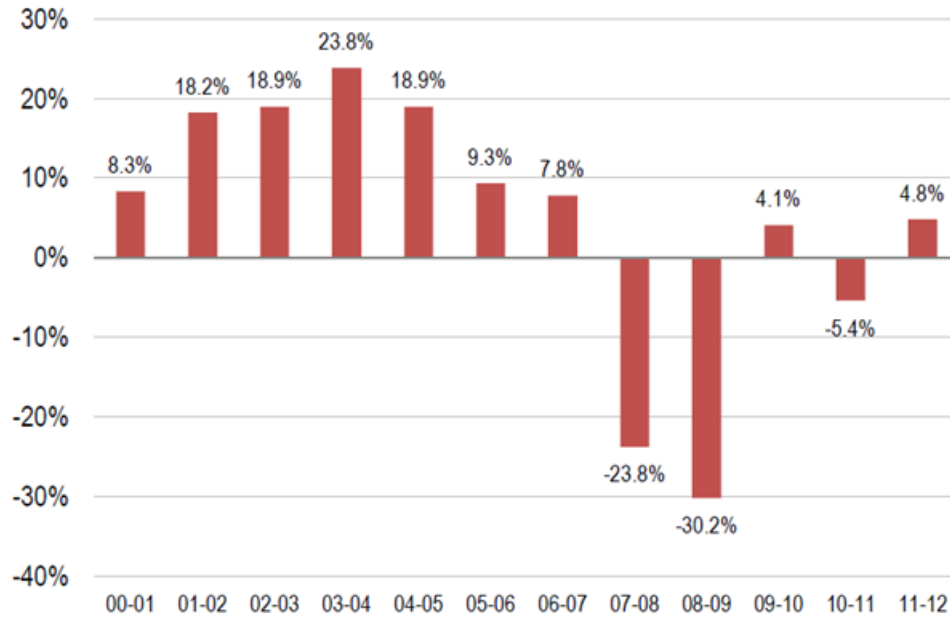
Between 2000 and 2012, the median home sales price increased 44.8 percent from \$227,897 to \$330,000. Median home sales price decreased by 0.9 percent between 2010 and 2012. In 2012, the median home sales price in the county was \$330,000. Median home sales price reflects re-sales of existing homes and simply provides guidance on the market values of homes sold in the County. Between 2000 and 2012, the change in annual home sales prices ranged between -30.2 and 23.8 percent. Between 2010 and 2012, the change in annual home sales prices was between -5.4 and 4.1 percent. Figure 19 shows Annual Median Home Sale Price Change for Existing Homes in Los Angeles in 2000-2012. The most drastic change occurred in 2008/2009 of -30.2%. The highest positive increase was seen in 2003/2004.

**Figure 18: Median Home Sale for Existing Homes in the City of Los Angeles from 2000-2012**



Source: SCAG City of Los Angeles Community Profile

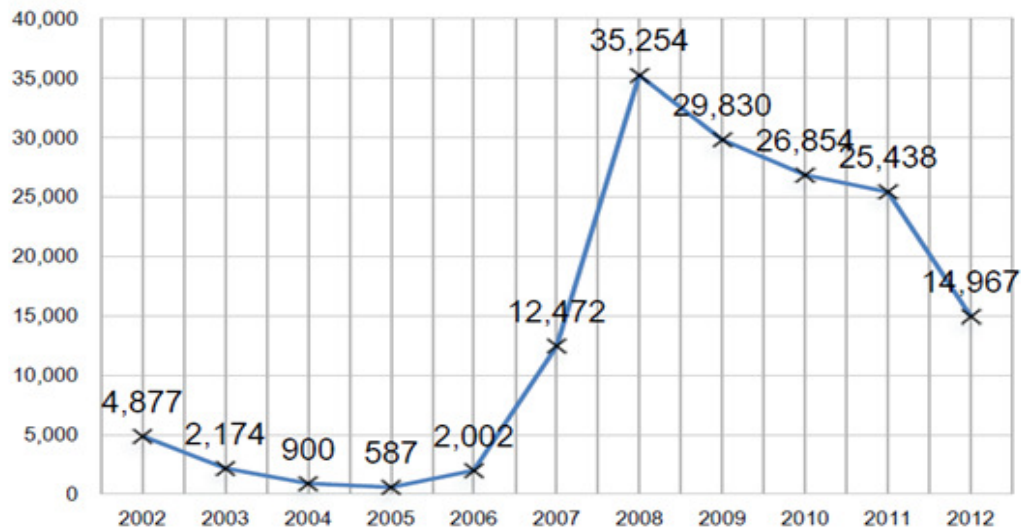
**Figure 19: Annual Median Home Sales Price Change for Existing Homes in Los Angeles in 2000-2012**



Source: SCAG City of Los Angeles Community Profile

Figure 20 discusses foreclosures in the City of Los Angeles from 2000-2012. There were a total of 14,967 foreclosures in 2012. Between 2007 and 2012; there were a total of 144,815 foreclosures.

**Figure 20: Foreclosures in the City of Los Angeles from 2000-2012**



Source: SCAG City of Los Angeles Community Profile



## **Community Cohesion**

Community cohesion is the degree to which residents have a sense of belonging to their neighborhood, a level of commitment of the residents to the community, or a strong attachment to neighbors, groups, and institutions, usually as a result of continued association over time. Also, cohesion refers to the degree of interaction among the individuals, groups, and institutions that make up a community.

Field surveys and discussions with local public officials and community leaders (such as clergy members) and historical preservation organizations provided valuable information and insight into the community's makeup and cohesiveness which confirmed a high level of community cohesion within the study area. The field surveys focused on social interactions among the neighborhood, pedestrian activity, predominance of single-family dwellings or apartments with courtyards, shared parking lots and yards of a housing complex, condition of houses, parks, and other community facilities.

Community facilities contribute in many ways to community cohesion. Community facilities are those services and institutions that the local population relies on for their health and welfare and as a means to interact with other members of the community. Community facilities include schools, libraries, recreation facilities, health providers, emergency services, community centers, boys and girls clubs, and other similar institutions. The severity of the impact of the transportation project on community cohesiveness will depend on how much the community uses and relies on the facility, and the degree to which the project will impede or enhance the ability of residents to access the facility. Facilities that are frequently accessed by the elderly, disabled, low-income, and minority populations, are especially important because these groups often have limited mobility and may depend on transit to access the facilities.

Further, while initiating public outreach, it was found that residents and other interested parties either individually or through their representatives expressed particular concerns for their neighborhood. Similar attitudes were voiced by interested parties that may be affected by the proposed project, which shows cohesiveness.

Based on Caltrans' previous interaction with this community back in the 1980s and 1990s for the I-110 Transitway Northern Terminus to Adams Blvd. Initial Study/Environmental Assessment and more recently in 2014 and 2015 for the I-110 High-Occupancy Toll Lane Flyover Project Initial Study/Environmental Assessment, this neighborhood displays a high level of community cohesion. Because of local concerns following the circulation of the I-110 Transitway Northern Terminus to Adams Blvd. Initial Study/Environmental Assessment Caltrans held an open house/public input meeting on May 3, 1990.

Caltrans has coordinated with this community on several occasions and has continuously observed a high level of cohesiveness. Interested parties and stakeholders have come together on many occasions to voice their concerns about impacts to the community as a result of potential projects.

## ***Environmental Consequences***

**Alternative 1 (No-Build Alternative):** The existing condition would remain; therefore, no impact would occur.

### **Alternative 2 (Build Alternative):**

#### **Potential Construction Impacts**

Impacts to community character and cohesion, specifically to pedestrians and bicyclists, are anticipated during construction due to the closure of Figueroa Way to all traffic. These impacts will be minimized with the implementation of a Traffic Management Plan (minimization measure T-1).

Construction impacts related to noise, vibration, odor, or pollution will be minimized by following all relevant laws, regulations, and Caltrans Standards which include but are not limited to Best Management Practices.

#### **Potential Operational Impacts**

The closure of Figueroa Way may represent an impact to community character and cohesion; however, mitigation measure P&B-1 will be incorporated, which intends to redesign and repurpose Figueroa Way as a bicycle and pedestrian pathway. With the incorporation of this mitigation measure, the impact will be less than significant. Temporary and permanent social impacts are discussed in Table 10.

## *I-110 Flyover Project*

**Table 10: Checklist for Assessing Temporary & Permanent Social Impacts**

Questions	No Build Alternative 1 (Yes, No or Not Applicable)	Build Alternative 2 (Yes, No or Not Applicable)
1. Will the project create a barrier that divides the neighborhood or limits access to all or part of the neighborhood?	No, construction would not occur. Therefore, no temporary/permanent construction/operational impacts would occur.	No, the project will not create a temporary or permanent barrier that divides the neighborhood and it does not limit access to all or part of the neighborhood. The elevated structure would not physically impede access to any part of the neighborhood. Temporary closure may occur during construction on Figueroa Way. Access to the community will be improved by improving circulation, and safety. Figueroa Way will be closed to vehicular traffic once the project is complete. The existing Metro bus stop on Figueroa Way is anticipated to be consolidated with the currently existing stop on Figueroa St. /23 <sup>rd</sup> St. Therefore, the Metro Silver Line and OCTA bus lines 701 and 721 will be using the existing bus stop on Figueroa St./23 <sup>rd</sup> St.
2. Will the project impact any special groups (such as the elderly, persons with disabilities, racial/ethnic/religious groups) within the neighborhood?	No, construction would not occur. Therefore, no temporary/permanent construction/operational impacts would occur.	Yes, the proposed Build Alternative will temporarily impact special groups such as the elderly, and persons with disabilities within the neighborhood with respect to access to Figueroa Way during the construction period. The community will potentially experience this temporary impact not just special groups. After construction, access will be regained for pedestrians and bicyclists, but will be closed to vehicular traffic.
3. Will the project reduce the amount of social interaction that occurs within the neighborhood?	No, construction would not occur. Therefore, no temporary/permanent construction/operational impacts would occur.	No, the project is not anticipated to reduce the amount of social interaction that occurs within the neighborhood. Figueroa Way is not considered an area where the community gathers to interact with one another.
4. Will the displacement of residents resulting from the proposed project negatively affect the perceived quality of life in the neighborhood?	No, construction would not occur. Therefore, no temporary/permanent construction/operational impacts would occur.	Not applicable. No residents will be displaced as a result of the proposed Build Alternative.

### *I-110 Flyover Project*

<b>Questions</b>	<b>No Build Alternative 1 (Yes, No or Not Applicable)</b>	<b>Build Alternative 2 (Yes, No or Not Applicable)</b>
5. Will the project affect access to, parking for, or result in the removal of, neighborhood facilities or services that are needed and valued by neighborhood residents (stores, parks, public services, schools)?	No, construction would not occur. Therefore, no temporary/permanent construction/operational impacts would occur.	No. Currently, there are 10 parking spots within State right of way on Figueroa Way that are being used by the businesses located in the nearby strip mall informally (this area is not leased from the State by any particular business). These 10 parking spots will be used for this project. There is ample parking within the strip mall. The Build Alternative would not result in temporary or permanent adverse effects related parking. No neighborhood facilities or services that are needed and valued by the neighborhood residents will be temporarily or permanently impacted as a result of the proposed Build Alternative.
6. Will the facilities and services subject to removal or relocation be able to remain in, or within proximity of, the neighborhood?	Not Applicable.	Not applicable. No relocations are anticipated.
7. Will the project result in an increase in noise, vibration, odor, or pollution that reduces social interaction in the neighborhood?	No, construction would not occur. Therefore, no temporary/permanent construction/operational impacts would occur.	Yes, but impacts will be temporary. Construction impacts related to noise, vibration, odor, or pollution will be minimized by following all relevant laws, regulations, and Caltrans Standards which include but are not limited to Best Management Practices. Further, a permanent increase in noise, vibration, odor, or pollution that reduces social interaction in the neighborhood is not anticipated as a result of operation of the proposed Build Alternative.
8. Will communal areas (e.g., parks and playgrounds) used by residents be negatively affected by construction of the project?	No, construction would not occur. Therefore, no temporary/permanent construction/operational impacts would occur.	No, communal areas are not anticipated to be negatively affected (temporarily or permanently) by the proposed Build Alternative. All work will be within State right of way/City of Los Angeles right of way.
9. Will the availability and convenience of transit services be reduced as a result of the project?	No, construction would not occur. Therefore, no temporary/permanent construction/operational impacts would occur.	No, the availability and convenience of transit services will not be reduced (temporarily or permanently) as a result of the proposed Build Alternative. The existing Figueroa Way Metro Silver Line bus stop on Figueroa Way will be eliminated, but all buses impacted by this bus stop elimination will be able to use the existing bus stop on Figueroa St. and 23 <sup>rd</sup> St.

## *I-110 Flyover Project*

<b>Questions</b>	<b>No Build Alternative 1 (Yes, No or Not Applicable)</b>	<b>Build Alternative 2 (Yes, No or Not Applicable)</b>
10. Will the project negatively affect pedestrian and non-motorized mobility within the neighborhood?	No, construction would not occur. Therefore, no temporary/permanent construction/operational impacts would occur.	Yes, the project will impact pedestrians and non-motorized mobility. Figueroa Way is currently being used by pedestrians and bicyclists as a short cut to access the surrounding community, but during and after construction this may not be possible, but with the incorporation of the following mitigation measure that impact will be less than significant. MIT P&B-1 refer to section 2.1.8 in this document. Any temporary construction impacts will be minimized by following all relevant laws, regulations, and Caltrans Standards that include, but are not limited to, Best Management Practices and a Transportation Management Plan.
11. Will vehicular mobility within the neighborhood be negatively affected by this project?	Yes, vehicular mobility on the mainline and on local streets would be negatively affected because traffic circulation is poor, there is a higher than average accident rate that is a safety concern, and there are several nearby bottleneck intersections.	Yes, but the impacts to vehicular mobility is temporary, and with the implementation of a project specific transportation management plan the impacts will be minimized. No permanent negative impacts to vehicular mobility are anticipated as a result of the proposed Build Alternative. According to a micro simulation model prepared by Caltrans District 7 Office of Traffic Investigations, current HOT lanes users would save on average five to ten minutes of travel time during peak hours. Consequently, the traffic travel time on local streets will potentially improve by one to two minutes during peak hours. Furthermore, the reduction in traffic congestion will potentially reduce traffic accidents at the study locations (NB I-110 HOT off-ramp at Adams Blvd., Flower St. at Adams Blvd., and Figueroa St. at Adams Blvd. and Figueroa St. at 23 <sup>rd</sup> St.). Refer to the Traffic & Transportation section for more details on the micro-simulation model, and higher than average accident rate.
12. Will vehicular traffic increase on local streets as a result of the project?	No, construction would not occur. Therefore, no temporary/permanent construction/operational impacts would occur.	No, it is not anticipated that the proposed Build Alternative will (temporarily or permanently) increase vehicular traffic on local streets. The project aims to accommodate current and future needs of the community. Currently, there are no plans to increase capacity on local streets, and the goal of the proposed build alternative is to accommodate future demands. The following information is based on the existing condition assuming no improvements. In 2018, the northbound I-110 HOT off-ramp/Adams Blvd. Interchange Annual Daily Traffic (AADT) will be 14000 and by 2040 it will be 15500. Further, in 2018 the northbound I-110 Main Line off-ramp/Adams Blvd. Interchange will have an AADT of 10500 and by 2040 it will be 11000. The proposed Build Alternative would accommodate future demands. Travel times are anticipated to improve by one to two minutes on local streets during peak hours because of the redistribution of traffic. Refer to section 2.1.8 in this document for more details.
13. If vehicular traffic increases, will this create unsafe conditions for non-motorized transportation within the neighborhood?	No, construction would not occur. Therefore, no temporary/permanent construction/operational impacts would occur.	No, vehicular traffic is not anticipated to increase because of the project. As mentioned in question 12 above, AADT will increase in the future, and the proposed Build Alternative is anticipated to accommodate this traffic increase. Further, with the incorporation of avoidance, minimization, and/or mitigation measures safety for non-motorized transportation will be increased because a designated bike lane/bike pathway will be incorporated into the project design to ensure the separation of vehicular, pedestrian, and bicycle traffic.

## *I-110 Flyover Project*

<b>Questions</b>	<b>No Build Alternative 1 (Yes, No or Not Applicable)</b>	<b>Build Alternative 2 (Yes, No or Not Applicable)</b>
14. Will there be any changes to popular bicycle or pedestrian routes?	No, construction would not occur. Therefore, no temporary/permanent construction/operational impacts would occur.	Yes, Figueroa Way will be impacted as a result of the Build Alternative. Figueroa Way is currently being used by pedestrians and bicyclists which may not be possible during construction. Figueroa Way will be re-designed to encourage pedestrian and bicycle use. This may include upgrading sidewalks, improving lighting, landscaping, ADA compliance, and signage to ensure the safety of pedestrians and bicyclists that use Figueroa Way. Also, a designated bike pathway or bike lane will be incorporated into the project to ensure that pedestrian traffic and bicycle traffic have designated areas to safely move through Figueroa Way to access the community. The Transportation Management Plan will minimize temporary construction impacts to bicyclists and pedestrians.
15. Will “blind or isolated” areas be created that are difficult to monitor for criminal activity as a result of the project?	No, construction would not occur. Therefore, no temporary/permanent construction/operational impacts would occur.	No, no permanent or temporary “blind or isolated areas” are anticipated to be created because of the proposed build alternative. St. John’s Cathedral Church staff voiced concern over the potential area under the elevated structure. In response to these concerns and to circulation related impacts mitigation measure P&B-1 (refer to section 2.1.8 in this document) has been introduced to mitigate the Figueroa Way closure and enhance the bicyclist and the pedestrian experience, which encourages a walk through area instead of “blind or isolated areas” under the elevated structure.
16. Will emergency response routes be negatively impacted as a result of the project?	No, construction would not occur. Therefore, no temporary/permanent construction/operational impacts would occur.	No, permanent negative impacts to emergency response routes are anticipated as a result of the proposed project. Any temporary impacts will be minimized by coordination with fire and police departments in the area during construction and a project specific Transportation Management Plan will also be in place in order to ensure timely responses.

Source: Florida DOT, *Community Impact Assessment, A Handbook for Transportation Professionals* 2000.

***Avoidance, Minimization, and/or Mitigation Measures***

**Minimization T-1:** A Traffic Management Plan (TMP) will be implemented to minimize direct and cumulative construction impacts on the community. The TMP shall be developed in consultation with the Los Angeles Department of Transportation and the California Department of Transportation, and it shall be provided with the construction plan to the City of Los Angeles Police Department and the City of Los Angeles Fire Department prior to commencement of construction activities. The TMP shall include the following implementation plans:

Public Information: Provide project updates to affected residents and businesses, including the general public, via brochures and mailers, community meetings, and web site information.

Motorist Information: Provide project information using changeable message signs and ground-mounted signs.

Incident Management: Implement construction zone enhanced enforcement program, freeway service patrol, and California Highway Patrol traffic handling.

Traffic Management during Construction: Provide a traffic lane closure chart, detour routes, pedestrian routes, residential and commercial access routes, and temporary traffic signals during construction.

Following Policies and Guidelines during Construction: Construction activities would be conducted in accordance with Caltrans guidelines.

**Mitigation P&B-1:** Re-design Figueroa Way to accommodate and encourage pedestrian and bicycle use. This may include upgrading sidewalks, improving lighting, landscaping, and ADA compliance, adding a bike pathway or lane, and signage to ensure the safety of pedestrians, bicyclists, and persons with disabilities that use Figueroa Way as a shortcut to access the surrounding community.

This mitigation measure will address the potentially significant impacts to community character and cohesion as a result of the proposed Build Alternative. Incorporation of this mitigation measure will also reduce/eliminate the occurrence of “blind or isolated spots” underneath the elevated structure, which was a concern raised by St. John’s Church staff.

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## 2.1.6 Environmental Justice

### ***Regulatory Setting***

All projects involving a federal action (funding, permit, or land) must comply with Executive Order (EO) 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, signed by President William J. Clinton on February 11, 1994. This EO directs federal agencies to take the appropriate and necessary steps to identify and address disproportionately high and adverse effects of federal projects on the health or environment of minority and low-income populations to the greatest extent practicable and permitted by law. Low income is defined based on the Department of Health and Human Services poverty guidelines. For 2014, this was \$23,850 for a family of four.

All considerations under Title VI of the Civil Rights Act of 1964 and related statutes have also been included in this project. Caltrans' commitment to upholding the mandates of Title VI is demonstrated by its Title VI Policy Statement, signed by the Director, which can be found in Appendix C of this document.

### ***Affected Environment***

As discussed in the Community Impact Assessment (August 2015) by 2035 the Los Angeles region is expected to add four million people, a majority of them non-white. According to the U.S. Census, in 2013, Los Angeles County's population was predominately Hispanic or Latino, and less than 10 % Black/African-American. Asians made up about 15% of the population. American Indians/Alaska Native and Native Hawaiian/Other Pacific Islander made up less than 2% of the population. Lastly individuals who identified themselves as two or more races was almost 3%. In 2010 in the City of Los Angeles the U.S. Census found that approximately 49% of the population was Hispanic or Latino and approximately 10 % Black/African-American. Asians made up about 11% of the city's population. American Indians/Alaska Native and Native Hawaiian/Other Pacific Islander made up less than 1% of the population. Lastly, individuals who identified themselves as two or more races was almost 5%. Table 11 lists these percentages.

**Table 11: Minority Populations in the City and the County of Los Angeles**

<b>Race/Ethnicity</b>	<b>City of Los Angeles (2010)</b>	<b>Los Angeles County (2013)</b>
Black/African American	9.6%	9.2%
American Indian/Alaska Native	0.7%	1.5%
Asian	11.3%	14.6%
Native Hawaiian/Other Pacific Islander	0.1%	0.4%
Two or More Races	4.6%	2.9%
Hispanic or Latino	48.5%	48.3%

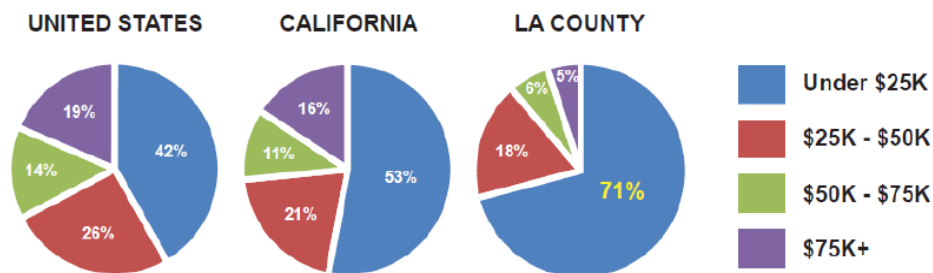
Source: US Census (October, 2014)

According to the U.S. Census in 2013, the median household income was \$55,909 Los Angeles County with 19% of residents living in poverty. The median household income for the City of Los Angeles was \$53,046 with 14.5% of people living in poverty.

### **Mobility and Transit Dependence**

According to The Los Angeles Equity Atlas Opportunity Mapped 2014, almost 90% of transit commuters in Los Angeles County earn less than \$50,000. Over 70% of transit commuters have incomes below \$25,000. Households living near transit are more than twice as likely to walk, bike or take transit to work as those living away from transit (21% vs. 9%). This is true among low-income workers as well (31% vs. 16%). 31% of workers who live near transit earning less than \$25,000 take transit, bike or walk to work, vs. 13% of workers near transit earning between \$25,000 and \$50,000. Transportation is the second highest household expense for the average American, and Los Angeles County residents spend more of their income on transportation than the national average. Refer to Figure 21 for transit ridership to work by income level in 2009. Los Angeles County has 71% transit ridership to work with an income under \$25,000 per year, which is higher than the State average of 53% and the nation's average of 42%.

**Figure 21: Transit Ridership to Work by Income Level, 2009**



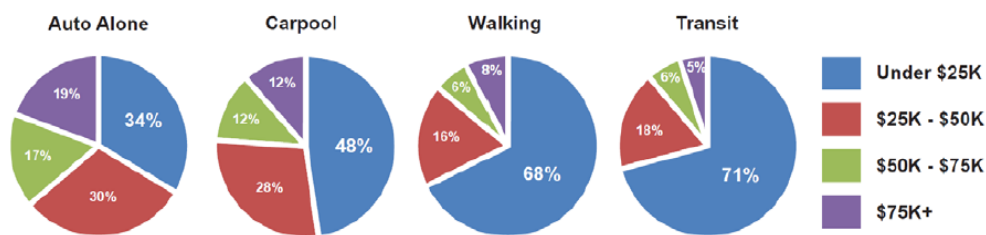
Source: The Los Angeles Equity Atlas Opportunity Mapped, 2014

The average commute time is 29 minutes in Los Angeles County, compared with 25 minutes nationally. About 12% of workers in the County have commutes longer than 60 minutes, compared with 8% nationally. Over 470,000 workers commute into Los Angeles County each day one of the largest in-county commuting rates in the nation. But a large number also commute out of the County (336,000 residents).

Low-income workers have both shorter and longer commutes than average workers, due to lower rates of driving. Refer to Figure 22 which shows Los Angeles County Transportation to work by worker income level in 2011. This figure states that 71% of transit riders made under \$25K per year. 68% of workers that walk to work made under \$25K per year, and only 48% of workers who carpool make under \$25K per year. Only 34% of workers that drive their automobiles alone make under \$25K per year. Figure 23 shows income levels and distance to work in Los Angeles County in 2011. Over 50% of individuals that earn a lower wage work within a less than 10 mile radius of their home. Contrast this with high wage-earning individuals, wherein a little over 40% work within a less than 10 mile radius of their home. The high wage workers seem to be able to work further from home than compared with low wage income earners. Those who bike and walk to work have shorter commutes, and those who take transit have longer commutes. 52% of commutes on transit take more

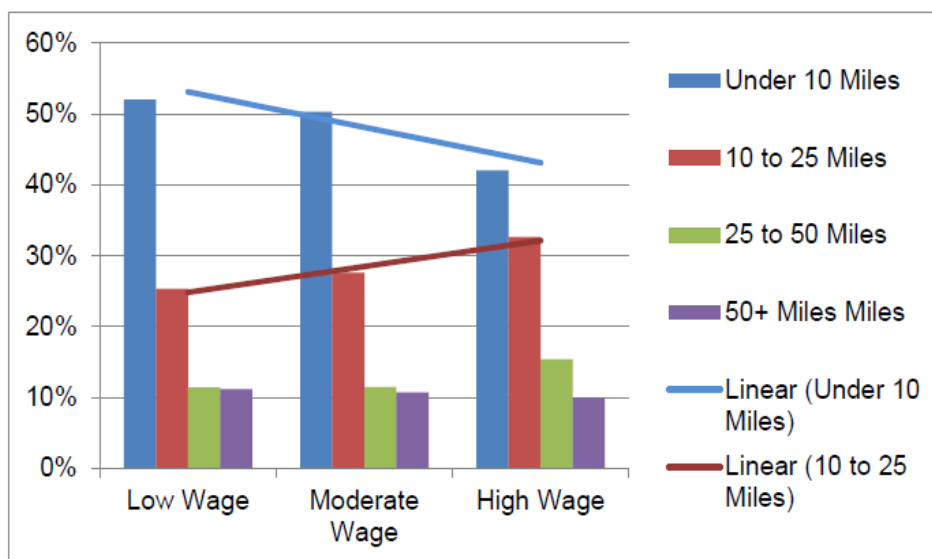
than 45 minutes, compared with 21% of commutes overall. The average County household spends 22% of its income on transportation, or about \$13,400 each year. This is a higher share of income than the national average of 17%. Low-income workers live in both areas that are central to the County and transit network and areas at the outer edge of the county; this explains the division in commute patterns, where low-income workers are both more likely to have short and long commutes.

**Figure 22: Los Angeles County Transportation to Work by Worker Income Level, 2011**



Source: The Los Angeles Equity Atlas Opportunity Mapped, 2014

**Figure 23: Income Levels and Distance to Work in Los Angeles County**



Source: The Los Angeles Equity Atlas Opportunity Mapped, 2014

## ***Environmental Consequences***

**Alternative 1 (No-Build Alternative):** The existing condition would remain; therefore, no impact would occur.

**Alternative 2 (Build Alternative):**

### **Potential Construction Impacts and Potential Operational Impacts**

The project study area is predominantly low income and/or minority populations, but no disproportionate adverse impacts to environmental justice populations are anticipated as a result of the Build Alternative. All potential impacts such as air quality impacts, noise and vibration impacts, water pollution impacts, hazardous waste impacts, community impacts, and traffic congestion (please see appropriate section in this document for more details on type of impact and the type of measures that will be implemented) will be minimized with the implementation of avoidance, and minimization measures throughout the project development and construction period.

No potential impacts have been identified as disproportionate because the percentage of low income or minorities experiencing any potential impact would not be higher than other members of the community.

There are positive impacts (project benefits), such as improving access to the surrounding land uses for various community members with various income levels whether they are driving in an automobile/carpooling, using public transportation, walking or bicycling. This project will improve access to jobs and community services within the Project Study Area. Improved access to local business by improving circulation and safety which will encourage economic growth to both minority owned and non-minority owned businesses.

Further, access to the flyover structure will be available to both HOT lanes users and transit users. The proposed Build Alternative will improve travel times and safety in the area for both automobile drivers and transit patrons. There are no disproportionate impacts anticipated to low income and/or minority populations in the project study area. Also, the project will not separate minority or low-income populations from the rest of the community and no services that target low-income populations will be permanently negatively affected by the project.

There are no disproportionate adverse effects on any low-income and/or minority populations as per EO 12898 regarding environmental justice.

***Avoidance, Minimization, and/or Mitigation Measures***

Below are the sections in this document where the proper avoidance, minimization, and/or mitigation measures are required in order to ensure that no disproportionate adverse effects on any low income and/or minority populations as per EO 12898 regarding environmental justice would occur.

Air quality measures can be found in section 2.2.4 of this document.

Noise and vibration measures can be found in section 2.2.5 of this document.

Water pollution measures can be found in section 2.2 of this document.

Hazardous Waste measures can be found in section 2.2.3 of this document.

Community impact measures can be found in section 2.1.5 of this document.

Traffic circulation measures can be found in section 2.1.8 of this document.

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## **2.1.7 Utilities and Emergency Services**

### ***Affected Environment***

#### **Utilities**

The Los Angeles Department of Water and Power (LADWP) is responsible for ensuring that water demand in the City is met and that state and federal water quality standards are achieved. The LADWP is the nation's largest municipal utility, and its service area is slightly larger than the legal boundary of the City. Under the provisions of the City Charter, the LADWP has complete charge and control of its water distribution system inside the City of Los Angeles. Water supply boundaries are not divided by community plan area, but rather bounded based on pressure zones that are dictated by ground elevation.

The LADWP also provides electric service to the City of Los Angeles. To ensure a reliable supply of power, the LADWP maintains a diversified energy generation mix – including coal, natural gas, large hydroelectric, nuclear, and renewable power such as wind, biomass, solar and cogeneration. The LADWP draws its energy supply from in-basin power plants and several out-of-state facilities in Nevada, Utah and the Pacific Northwest. Business and industry consume about 70 percent of the electricity in Los Angeles, but residents constitute the largest number of customers. In addition to serving these consumers, the LADWP lights public streets and highways, powers the city's water system and sells electricity to other utilities. Natural gas services in the area are provided by the Southern California Gas Company.

The City of Los Angeles Department of Public Works Bureau of Sanitation (LABS) provides sewer conveyance infrastructure and wastewater treatment services to the City of Los Angeles. The primary responsibility of the LABS is to collect, clean and recycle solid and liquid waste generated by residential, commercial and industrial users. The Bureau manages and administers three primary programs: 1) wastewater collection, conveyance, treatment, and disposal; 2) solid waste resources collection, recycling and disposal; and 3) watershed protection.

The City of Los Angeles Department of Public Works Bureau of Sanitation (LABS) provides solid waste management services to single-family and small multi-family residential households in Los Angeles. Private hauling companies collect other refuse, including most multi-family and all commercial and industrial waste. The City of Los Angeles Solid Waste Management Policy Plan (SWMPP) is the current long range solid waste management policy plan for the City. The Solid Waste Integrated Resources Plan (SWIRP) will become the City's 20-year master plan to achieve zero waste in Los Angeles.

## **Police**

Law enforcement services are provided by the City of Los Angeles Police Department (LAPD), which operates within four bureaus (Central, South, Valley and West) throughout the City. The LAPD uses a work load computer model (Patrol Plan) to deploy patrol officers to the various geographic areas in the City. This model includes several factors, such as response time, service calls, and traffic conditions. The South Los Angeles Community Plan Area falls within the jurisdiction of the Central, South, and West Bureaus of the LAPD.

The Central Bureau encompasses approximately 65 square miles and serves a population of 900,000 people. This bureau operates five police stations, three of which serve portions of the South Los Angeles Community Plan Area that include the Rampart, Central, and Newton Community Police Stations. The Rampart Community Police Station is located at 1401 W. 6th St., and serves a small portion of the South Los Angeles Plan Area along the northern-eastern boundary. The Central Community Police Station is located at 251 East 6th St. in Downtown Los Angeles, and also serves a small portion of the Community Plan Area along its northern edge. The Newton Community Police Station is located in the Southeast Los Angeles Community Plan Area at 3400 South Central Ave., and serves a small part of the South Los Angeles community plan area along the eastern boundary of South Los Angeles, south of Slauson Avenue.

The LAPD South Bureau encompasses approximately 57 square miles and serves a population of approximately 640,000 people. This bureau operates four police stations, three of which serve the project area: the 77th Street, Southeast, and Southwest Community Police Stations. The 77th Street Community Police Station is located at 7600 South Broadway and serves the south-west neighborhoods in South Los Angeles, generally between Vernon Ave. and 108th St. The Southeast Community Police Station is located at 145 West 108th St. and serves the south portion of the community plan area, east of Vermont Ave. from Manchester Ave. to 120<sup>th</sup> St.

The LAPD West Bureau serves an area of approximately 124 square miles which contain approximately 840,000 residents. The Olympic Community Police Station located at 1130 South Vermont Ave., serves a northern portion of the Plan Area generally bounded by Arlington Ave. on the west, Pico Ave. on the north, Hoover St. on the east and the Santa Monica Freeway (I-10) on the south. The California Highway Patrol Station is located within the study area at 777 W. Washington Blvd. Los Angeles, CA 90015. This is the only law enforcement office within the project study area.

## **Fire and Emergency Services**

Fire prevention, fire protection and Emergency Medical Service (EMS) for the City of Los Angeles are primarily provided by the Los Angeles Fire Department (LAFD). The Los Angeles County Fire Department (LACFD) also provides fire protection and emergency services for areas of the South Los Angeles Community Plan Area that border other jurisdictions, through automatic-aid agreements with the LAFD. The LAFD operates 106 neighborhood fire stations located throughout the Department's 470-square-mile jurisdiction. The South Los Angeles Community Plan Area is served by six fire stations, as shown in Table 12. The LAFD is responsible for fire prevention, firefighting, emergency medical care, technical rescue, hazardous materials mitigation, disaster response, public education, and community services.



**Table 12: Fire Stations Serving the South Los Angeles Area**

Fire Station Number	Address
13	2401 West Pico Blvd.
15	915 West Jefferson Blvd.
26	2009 South Western Ave.
46	4370 South Hoover St.
57	17800 South Vermont Ave.
66	1909 West Slauson Blvd.

Source: LAFD Planning Section, and South Los Angeles Community Plan

Southeast Los Angeles is served by five fire stations, as shown in Table 13.

**Table 13: Fire Stations Serving the Southeast Los Angeles Area**

Station Number	Address
14	3401 South Central Ave.
21	1192 East 51 <sup>st</sup> St.
33	6506 South Main St.
64	10811 South Main St.
65	1801 East Century Blvd.

Source: LAFD Planning Section and Southeast Community Plan

Fire Department services are based on the community's needs, as determined by ongoing evaluations. When an evaluation indicates increased response time, the acquisition of equipment, personnel, and/or new stations is considered.

As development occurs, the Fire Department reviews environmental impact reports and subdivision applications for needed infrastructure. Development is subject to the standard conditions of the LAFD with regard to station construction, fire suppression systems and emergency medical services.

## ***Environmental Consequences***

**Alternative 1 (No Build Alternative):** The existing condition would remain; therefore, no impact would occur.

### **Alternative 2 (Build Alternative):**

#### **Potential Construction Impacts**

No construction impacts would occur because no utilities will be removed, relocated, or required to be protected in place as a result of the proposed Build Alternative. No construction impacts to emergency services are anticipated as a result of the Build Alternative with the implementation of minimization measure T-1.

#### **Potential Operational Impacts**

No operational impacts would occur because no utilities will be removed and or relocated as a result of the proposed Build Alternative. No operational impacts to emergency services are anticipated as a result of the Build Alternative.

### ***Avoidance, Minimization, and/or Mitigation Measures***

**Minimization T-1:** A Traffic Management Plan (TMP) will be implemented to minimize direct and cumulative construction impacts on the community. The TMP shall be developed in consultation with the Los Angeles Department of Transportation and the California Department of Transportation, and it shall be provided with the construction plan to the City of Los Angeles Police Department and the City of Los Angeles Fire Department prior to commencement of construction activities. The TMP shall include the following implementation plans:

**Public Information:** Provide project updates to affected residents and businesses, including the general public, via brochures and mailers, community meetings, and web site information.

**Motorist Information:** Provide project information using changeable message signs and ground-mounted signs.

**Incident Management:** Implement construction zone enhanced enforcement program, freeway service patrol, and California Highway Patrol traffic handling.

**Traffic Management during Construction:** Provide a traffic lane closure chart, detour routes, pedestrian routes, residential and commercial access routes, and temporary traffic signals during construction.

**Following Policies and Guidelines during Construction:** Construction activities would be conducted in accordance with Caltrans guidelines.

## **2.1.8 Traffic and Transportation/Pedestrian and Bicycle Facilities**

### ***Regulatory Setting***

The Department, as assigned by FHWA, directs that full consideration should be given to the safe accommodation of pedestrians and bicyclists during the development of federal-aid highway projects (see 23 Code of Federal Regulations [CFR] 652). It further directs that the special needs of the elderly and the disabled must be considered in all federal-aid projects that include pedestrian facilities. When current or anticipated pedestrian and/or bicycle traffic presents a potential conflict with motor vehicle traffic, every effort must be made to minimize the detrimental effects on all highway users who share the facility.

In July 1999, the U.S. Department of Transportation (USDOT) issued an Accessibility Policy Statement pledging a fully accessible multimodal transportation system. Accessibility in federally assisted programs is governed by the USDOT regulations (49 CFR Part 27) implementing Section 504 of the Rehabilitation Act (29 United States Code [USC] 794). FHWA has enacted regulations for the implementation of the 1990 Americans with Disabilities Act (ADA), including a commitment to build transportation facilities that provide equal access for all persons. These regulations require application of the ADA requirements to federal-aid projects, including Transportation Enhancement Activities.

### ***Affected Environment***

#### **Accident Data**

Traffic Accident Surveillance and Analysis System (TASAS) selective record retrieval summary and accident rates for the following period of three (3) years (10/01/2010 and 09/30/2013) are as follows:

The TASAS history analysis revealed a total of 265 accidents (1 fatal, 77 injury, and 178 PDO) within the time period. The primary collision factors identified were speeding (206), improper turn (9), other violations (37), under influence of alcohol (11), other than driver (1), and following too closely (0), where 249 and 16 collisions occurred when the roadway was dry and wet, respectively. Most of the collisions reported took place when there was no unusual roadway condition. There were 182 collisions which occurred in daylight, 69 in dark with street lights, 8 in dark with no street lights, and 6 in dusk/dawn. For movement preceding collisions, there were: proceeded straight (239), stopped (153), changing lanes (37), slowing/stopping (45), and other (14). Locations of collisions are as follows: interior lanes (177), left lane (45), and right lane (44), beyond shoulder driver's right (7), beyond shoulder driver's left (7), HOV lane (3), right shoulder area (2), and left shoulder area (1). The types of collisions were: 210 rear-end, 37 sideswipe, 14 hit-objects, 2 broadsides, 1 overturn, and 1 head-on. The object struck median barrier (7), guardrail (5), overturned (1), wall (except sound wall) (2), and other object on road (1). Table 14 shows Northbound selective accident rate calculations and it shows a higher than average accident rate for I-110 NB HOT lane off-ramp to Adams Blvd.

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**Table 14: TASAS– Northbound Selective Accident Rate Calculation**

Location	Fatal Accident Rates					
I-110	Actual (Accidents/MVM)			Average (Accidents/MVM)		
	Fatal	F + I	Total	Fatal	F + I	Total
I-110 NB HOT/Express Lane off-ramp to Adams Boulevard PM 20.54	0.000	<b>0.23</b>	0.59	0.003	0.21	0.62
I-110 NB off-ramp to Mixed flow off- ramp to Adams Boulevard PM 20.478	0.00	<b>0.62</b>	<b>1.56</b>	0.003	0.35	1.01
I-110 Mainline NB Freeway PM 20.10-20.92	0.008	<b>0.64</b>	<b>2.18</b>	0.004	0.31	1.04
Location	TASAS Selective Records Retrieval Summary					
I-110 Between PM 20.10-20.92	TASAS of all crashes between 10/01/2010 and 09/30/2013			Type of Collision 10/01/2010 and 09/30/2013		
	total Collision	fatal Collision	“fatal+injury” Collision	Rear End	Hit Object	Sideswipe
I-110 NB HOT/Express Lane off-ramp to Adams Boulevard PM 20.54	<b>5</b>	0	<b>2</b>	3	0	1
I-110 NB off-ramp to Mixed flow off- ramp to Adams Boulevard PM 20.478	<b>15</b>	0	<b>6</b>	8	3	3
I-110 Mainline NB freeway PM 20.10-20.92	<b>265</b>	1	<b>78</b>	210	14	37

Source: Draft Project Report (September 2015)

Between the period of 10/01/2010 and 09/30/2013, at the NB Route 110 HOT lane off-ramp (PM 20.540), the actual “fatal + injury” accident rates are slightly higher than the average accident rates. Between the period of 10/01/2010 and 09/30/2013, at the NB Route 110 mixed flow off-ramp (PM 20.478), the actual “fatal + injury” accident rates are higher than the average accident rates but and “total” actual accident rates are 50% higher than the average “total” accident rates. Between the period of 10/01/2010 and 09/30/2013, along the NB Route 110 mainline (PM 20.10 and PM 20.92), the actual “fatal + injury” and the “total” accident rates are higher than the average accident rates. The fatal accident occurred on 9/10/2011 were caused by a speeding motorcycle that rear ended a car, then the motorcycle’s driver was ejected and collided with the roadway.

## Traffic and Transportation

According to the Traffic Study Report Addendum (April 2015), detailed intersection capacity and operational analyses were conducted at several key intersections in the vicinity of the project site for weekday AM (7:30 to 9:30 AM) and PM(5:00 to 7:00 PM) peak hours. The following intersections were analyzed using the Highway Capacity Manual (HCM), Transportation Research Board-2010 methodology: Northbound I-110 HOT off-ramps and Adams Blvd., Flower St. and Adams Blvd., Figueroa St. and Adams Blvd., and Figueroa St. and 23<sup>rd</sup> St. Table 15 clarifies what the HCM defines as level of service.

**Table 15: HCM Level of Service (LOS Criteria)**

Level of Service (LOS)	Signalized Intersections (Average Control Delay per Vehicle in Seconds)	Un-signalized Intersections (Average Control Delay per Vehicle in Seconds)	Description of LOS
A	≤10	≤10	Very low vehicle delays, free traffic flow, signal progression extremely favorable, most vehicles arrive during given signal phase
B	>10-20	>10-15	Good traffic flow, good signal progression, more vehicles stop and experience higher delays than for LOS A.
C	>20-35	>15-25	Stable traffic flow, fair signal progression, significant number of vehicles stop at signal.
D	>35-55	>25-35	Noticeable traffic congestion, longer delays and unfavorable signal progression, many vehicles stop at signals.
E	>55-80	>35-50	Unstable traffic flow, poor signal progression, significant congestion, traffic near roadway capacity, frequent traffic signal cycle failures.
F	>80	>50	Unacceptable delay, extremely unstable flow, heavy congestion, traffic exceeds roadway capacity stop and go conditions.

## Existing Traffic Data

The 2014 and future 2018 and 2040 Annual Average Daily Traffic (AADT) for the NB I-110 HOT off-ramp/Adams Blvd. Interchange and NB I-110 Mainline Off-ramp/Adams Blvd. Interchange along Route 110 is provided in the Table 16 and 17.

**Table 16: AADT – NB I-110 HOT Off-ramp/Adams Blvd Interchange**

Year	Route	County	Post mile	NB Peak Hour	NB AADT
2014	110	LA	20.478	1150	12000
2018	110	LA	20.478	1413	14000
2040	110	LA	20.478	1521	15500

Source: Draft Project Report (September 2015)

**Table 17: AADT – NB I-110 Main Line off-ramp/Adams Blvd Interchange**

Year	Route	County	Post mile	NB Peak Hour	NB AADT
2014	110	LA	20.478	967	10000
2018	110	LA	20.478	1015	10500
2040	110	LA	20.478	1092	11000

Source: Draft Project Report (September 2015)

### Micro-simulation Software

Synchro software was used in this study to determine macro LOS and delays, then SimTraffic software was used to simulate study conditions. SimTraffic is a microscopic model used to simulate a wide variety of traffic controls. Each vehicle in the traffic system is individually tracked through the model and comprehensive operational measures of effectiveness are collected on every vehicle during each 0.1-second of the simulation. Unlike Synchro, SimTraffic measures the full impact of queuing and blocking.

SimTraffic was used as companion software to Synchro software. SimTraffic can be used for simulation and animation purposes. The following are some items that are included in the program and considered for simulation:

- Calibration to match real-world conditions
- Multiple runs averaged to reduce the variability in results. The model recorded 5 to 10 simulation runs

### Pedestrian and Bicycle Facilities

The Los Angeles Department of Transportation (LADOT) recognizes the need for improving pedestrian safety and enhancing the City's pedestrian environment. Pedestrian safety is a high priority activity for the City. LADOT has recently added two Pedestrian Coordinator positions to oversee the pedestrian safety program and create a comprehensive Pedestrian Master Plan for the City.

Teams of engineers in the LADOT conduct studies to improve pedestrian safety. They evaluate the safety of City crosswalks and children's walking routes to Los Angeles schools. Adult crossing guards are assigned at elementary school crossings. Loading zones adjacent to schools are reviewed and in some cases, special drop-off zones can be arranged in coordination with the school. LADOT also works with the City's Pedestrian Advisory Committee to develop policies and projects to improve pedestrian safety zones can be arranged in coordination with the school. The Pedestrian Advisory Committee (PAC) advises the City of Los Angeles on pedestrian issues. PAC's mission is "to create a safe pedestrian environment and to encourage walking as a viable travel mode. The goals of PAC include: promote safe behavior by both pedestrians and motorists, identify locations where pedestrian safety is most at risk, recommend physical, operational and policy changes to reduce the risk of pedestrian fatalities and injuries, recommend improvements to pedestrian facilities to make walking attractive, provide pedestrian-oriented recommendations on land use plans.

Part of LADOT's pedestrian safety program involves increasing the visibility of pedestrians to motorists at street crossings where a stop sign or traffic signal is not present. Crosswalks are often enhanced in the following ways:

- Installing visual warnings for drivers, which include ladder crosswalk markings, warning signs, warning pavement messages and extended red curb zones
- Assigning school crossing guards at locations near elementary schools in order to provide the adult guidance needed to cross streets
- Deploying “pedestrian warning devices” at the most critical locations. This LADOT innovation warns motorists of pedestrians by flashing overhead beacons after they push the crosswalk button

According to the South and Southeast Los Angeles Community Plans, Los Angeles is in an ideal position to encourage bicycle usage. Excellent climatic conditions for bicycling in Southern California prevail approximately 340 days per year. By increasing the number of bicyclists who ride for commuting and other utilitarian purposes, traffic congestion is reduced and air quality is improved. In addition, bicyclists benefit from improved health and fitness. A large portion of personal trips are two miles or shorter, many of which people may prefer to complete by bike, if a safe route exists.

The City of Los Angeles’ 2010 Bicycle Plan, a part of the Transportation Element, was created to enhance bicycle transportation at a citywide scale and includes three goals: (1) To increase the number and types of bicyclists who bicycle in the City, (2) to make every street a safe place to ride a bicycle, and (3) to make the City of Los Angeles a bicycle-friendly community. This Plan helps to implement the 2010 Bicycle Plan at the community level through policies and programs that support the goals above. Specifically, the Bicycle Plan calls for increased bikeways along Major Highway Class II streets, particularly those with bus rapid transit service, as well as the establishment of Bicycle-Friendly Streets on streets with low traffic volumes and slow speeds. A “bikeway” is a generic term for any road, street, path or way that in some manner is specifically designed for bicycle travel, regardless of whether such facilities are designated for the exclusive use of bicycles or are to be shared with other transportation modes. The Federal and State transportation system recognizes three primary facilities: Bicycle Paths (Class I), Bicycle Lanes (Class II), and Bicycle Routes (Class III). In addition, the City’s Bicycle Plan established a new classification titled, “Bicycle-Friendly Street.”

Figure 24 offers an illustration of the different types of bicycle classes (classes I, II, III). Class I bicycle paths provide a completely separated right-of-way for the exclusive use of bicycles and pedestrians with cross-flow by motorists minimized. Dual use by pedestrians and bicycles is undesirable, and the two should be separated wherever possible. Class II bicycle lanes provide a striped lane for one-way bike travel on a street or highway. Class III Bicycle Routes and Bicycle-Friendly Streets are in-road bikeways where bicycles and motorists share the roadway. They are typically intended for streets with low traffic volumes, signalized intersections at crossings, or wide outside lanes. More specifically, bicycle-friendly streets are local and/or collector streets that include at least two traffic calming engineering treatments such as narrowed roads or speed bumps in addition to signage and shared lane markings.

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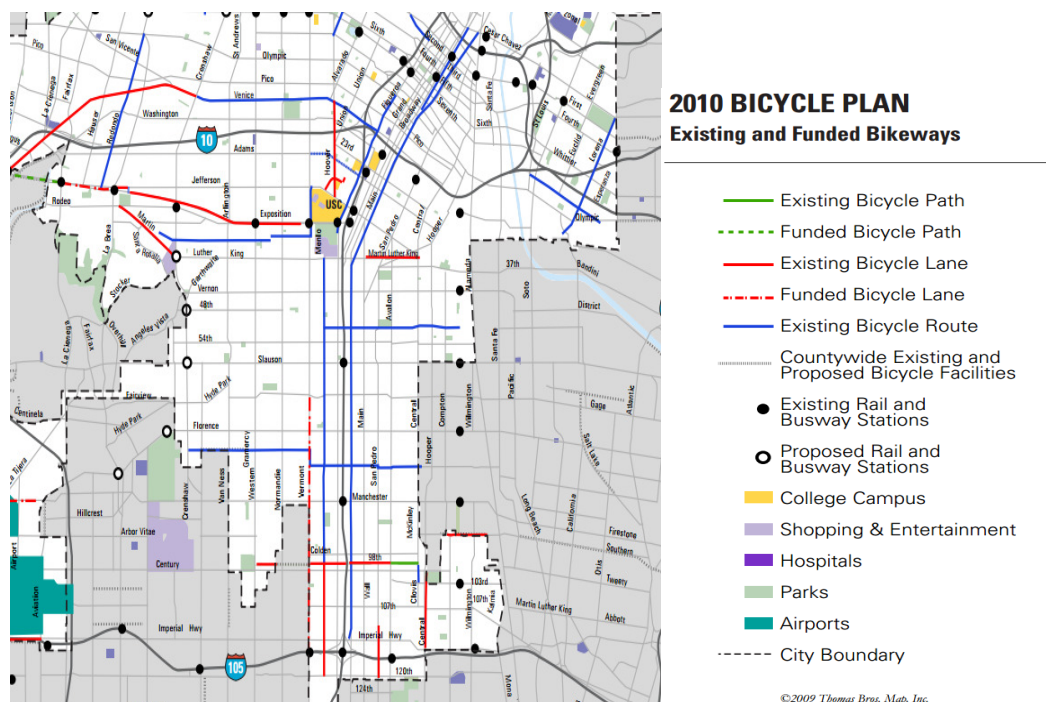
Figure 25 illustrates existing and funded bikeways as of 2010, which is the most updated information to date from the City of Los Angeles.

**Figure 24: Bike Classes**



Source: City of Los Angeles' 2010 Bicycle Plan

**Figure 25: Existing and Funded Bikeways 2010**



Source: City of Los Angeles' 2010 Bicycle Plan

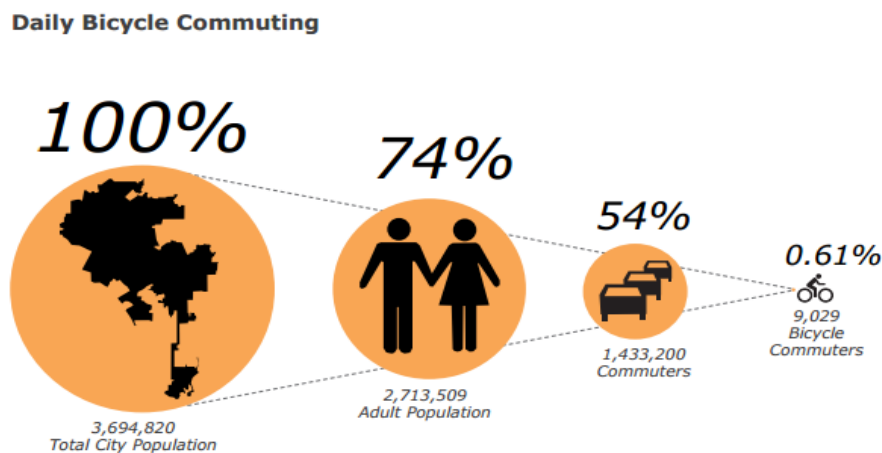


According to the City of Los Angeles' Bicycle Plan (2010), the Census data does provide information about the number of bicyclists commuting to work each day. Based on the 2000 Census the City had 3,694,820 residents of which 2,713,509 were adults (18 years of age or older). Of this adult population 1,433,200 are categorized by the Census as commuters, and of these commuters 9,029 or 0.61% commuted to work by bicycle each day. Since 2000 interest in bicycling has continued to grow and the 2008 American Community Survey revealed that the City's share of bicycle commuting rose from its 2000 level of 0.61% to 0.90%, which is a full 48% increase in eight years.

Figure 26 indicates the daily bicycle commuting trend in the City of Los Angeles in 2010, which shows that only 0.61% of commuters use a bicycle. Figure 27 shows that 75% of bicycle riders ride for recreation.

The Southern California Association of Governments (SCAG) developed a Regional Travel Survey (Survey) to evaluate the variety of transportation trips taken in Los Angeles County and the modes used for the trips. The 2008 American Community Survey also revealed that in Los Angeles County 1% of daily trips were made by bicycle. Assuming again the City's adult population of 2,713,509 and that each person typically makes 3.79 trips per day for a total of 10,039,983 trips, then 1% of those trips would equal 100,300 bicycle trips each day.

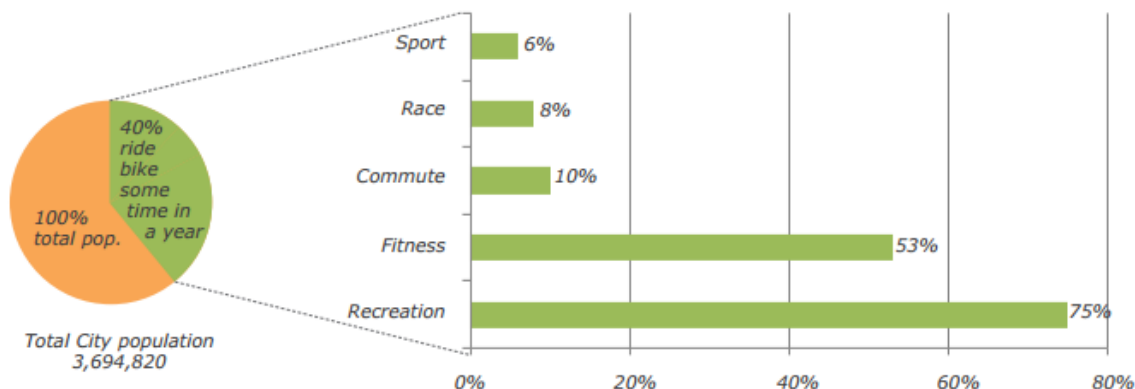
**Figure 26: Daily Bicycle Commuting in the City of Los Angeles, 2010**



Source: City of Los Angeles' 2010 Bicycle Plan

**Figure 27: Variety of Bicycle Use, 2010**

**Variety of Bicycle Use**



Source: City of Los Angeles' 2010 Bicycle Plan

### **Compliance with Americans with Disabilities Act (ADA)**

One of Caltrans' goals is Mobility and to maximize transportation system performance and accessibility. In support of this goal, Caltrans created the ADA Infrastructure Program under its Maintenance and Operations Program. The objective of the ADA Infrastructure Program is to make Caltrans infrastructure equally accessible to persons with disabilities. Caltrans does not discriminate on the basis of disability and believes in providing equal access to all of its infrastructure, programs, services, and activities. Caltrans is committed to working with its partners to identify and address access barriers to its infrastructure.

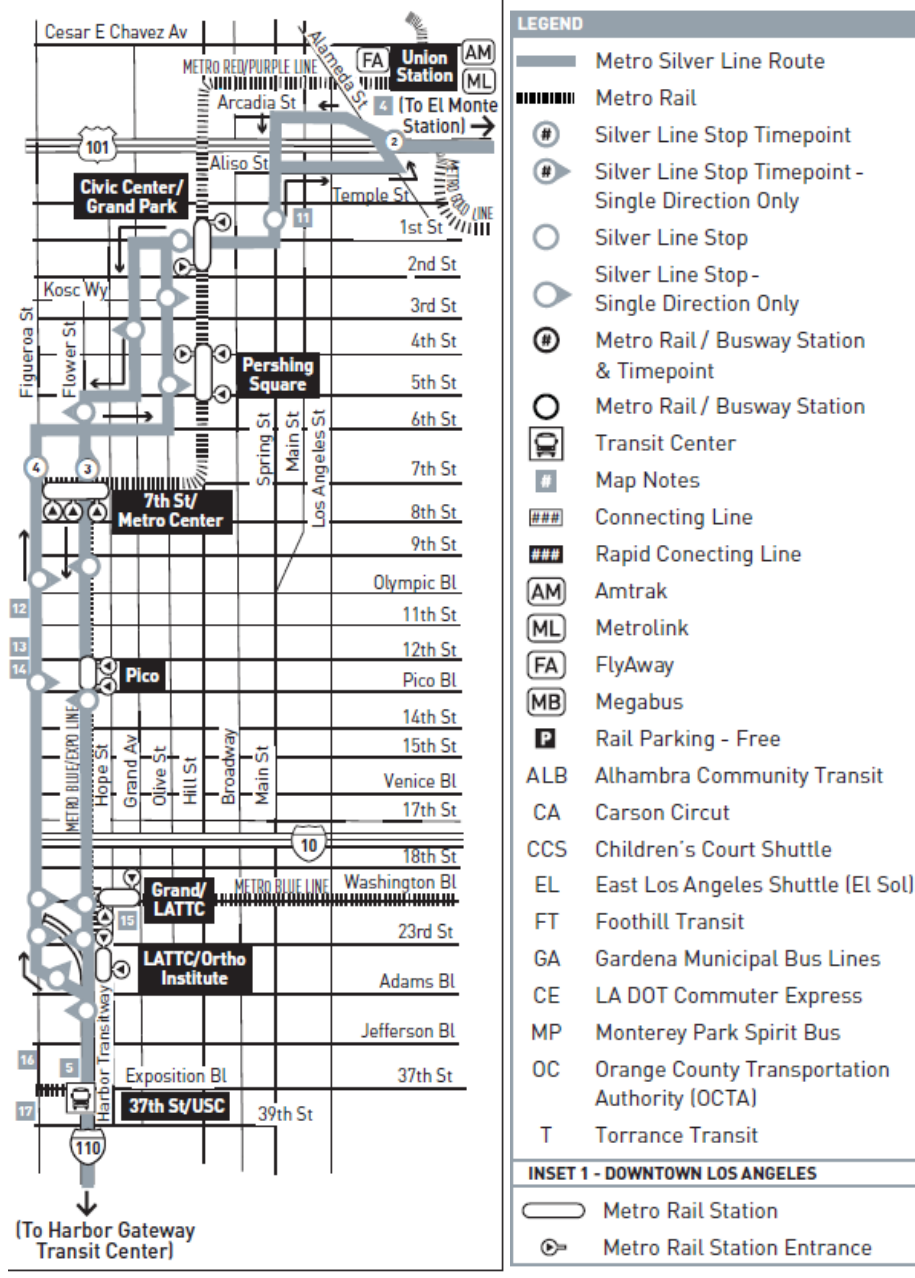
In accordance with Title II of the Americans with Disabilities Act of 1990, Caltrans has designated a Statewide ADA Coordinator who is responsible to coordinate ADA compliance across the State. Caltrans has also established a website where access barriers can be reported.

### **Public Transit (Trains and Buses)**

The proposed project is near the Metro Expo Line, which connects the Westside by rail to Downtown Los Angeles, Hollywood, South Bay, Long Beach, Pasadena, and dozens of points in between. The Metro Expo Line is powered electrically with overhead catenary wires. There are two Expo Line stations near the proposed project. The first is Jefferson/USC Station, located at 3214 S Flower St., and the second is the Expo Park/USC Station, located at 661 Exposition Blvd.

Currently, there is a Metro Silver Line/OCTA lines 701/721 stop on Figueroa Way within the project study area. Refer to Figure 28 for a map of the Metro Silver Line.

Figure 28: Public Transportation Locations



Source: Metro Silver Line Schedule (June 2015)

## **Environmental Consequences**

**Alternative 1 (No Build Alternative):** The existing condition would remain; therefore, no impact would occur.

### **Alternative 2 (Build Alternative):**

#### **Potential Construction Impacts**

##### **Traffic and Transportation**

Traffic circulation impacts during construction may occur as a result of the proposed Build Alternative, but will be minimized to the greatest extent practicable with the incorporation of minimization measure T-1.

##### **Pedestrian and Bicycle Facilities**

Impacts to pedestrian and bicycle facilities are anticipated during construction due to the closure of Figueroa Way to all traffic, specifically pedestrian and bicyclists. These impacts will be minimized to the greatest extent practicable with the incorporation of minimization measure T-1.

##### **Public Transit (Trains and Buses)**

The Expo Line will not be impacted by the proposed Build Alternative, and coordination with Metro Rail Operations will occur during construction to avoid any impact to Expo Line operations. As Figueroa Way will be closed during construction, impacts to Metro Silver Line and OCTA lines 701/721 may occur. However, early coordination with Metro and OCTA will occur to relocate and consolidate the impacted stop with an existing stop at the nearby intersection of Figueroa St. /23<sup>rd</sup> St, thereby minimizing an impact to service. Refer to minimization measure BUS-1.

#### **Potential Operational Impacts**

##### **Traffic and Transportation**

Tables 18 through 21 focus on current level of service and average delay in seconds in 2014, and future built out years 2018 as well as horizon year 2040. Although the LOS may go from an “F” to an “F,” by focusing on the average delay in seconds one can see a clear improvement in average delays with the implementation of the proposed Build Alternative. As illustrated in Tables 18 through 21, the average delays in 2018 and 2040 are improved in all analyzed intersections in both AM and PM peak hours when comparing the No-build 2018 and 2040.

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**Table 18: 2018 AM Peak Hours Level of Service (LOS)**

Intersection	Average delay(in seconds)/2014 LOS	Average delay(in seconds)/LOS in 2018 (No-Build)	Average delay(in seconds)/LOS in 2018 (Build)
NB I-110 Off Ramp @ Adams Blvd.	170.9/F	216.7/F	111.4/F
Flower St. @ Adams Blvd.	58.7/E	119.8/F	18.0/B
Figueroa St. @ Adams Blvd.	54.1/D	135.7/F	91.7/F
Figueroa St. @ 23 <sup>rd</sup> St.	47.5/D	58.2/E	49.9/D

Source: Traffic Report (April 2015)

**Table 19: 2018 PM Peak Hours LOS**

Intersection	Average Delay (in seconds)/2014 LOS	Average delay(in seconds)/LOS in 2018 (No-Build)	Average delay in seconds) /LOS in 2018 (Build)
NB I-110 Off Ramp @ Adams Blvd.	131.4/F	174.6/F	27.7/C
Flower St. @ Adams Blvd.	65.8/E	116.6/F	44.6/D
Figueroa St. @ Adams Blvd.	44.3/D	114.8/F	80.0/E
Figueroa St. @ 23 <sup>rd</sup> St.	23.3/C	52.0/D	34.0/C

Source: Traffic Report (April 2015)

**Table 20: 2040 AM Peak Hours LOS**

Intersection/ Number	Average Delay (in seconds)/ 2014 LOS	Average delay(in seconds)/LOS in 2040 (No-Build)	Average delay in seconds) /LOS in 2040 (Build)
NB I-110 Off Ramp @ Adams Blvd.	170.9/F	264.6/F	116.7/F
Flower St. @ Adams Blvd.	58.7/E	147.7/F	18.9/B
Figueroa St. @ Adams Blvd.	54.1/D	155.7/F	117.0/F
Figueroa St. @ 23 <sup>rd</sup> St.	47.5/D	85.4/F	77.3/E

Source: Traffic Report (April 2015)

**Table 21: 2040 PM Peak Hours LOS**

Intersection/ Number	Average Delay (in seconds)/ 2014 LOS	Average delay(in seconds)/LOS in 2040 (No-Build)	Average delay in seconds) /LOS in 2040 (Build)
NB I-110 Off Ramp @ Adams Blvd.	131.4/F	197.8/F	39.7/D
Flower St. @ Adams Blvd.	65.8/E	135.3/F	46.8/D
Figueroa St. @ Adams Blvd.	44.3/D	143.3/F	125.0/F
Figueroa St. @ 23 <sup>rd</sup> St.	23.3/C	63.2/E	33.6/C

Source: Traffic Report (April 2015)

## *I-110 Flyover Project*

Individual vehicles are modeled and displayed traversing a street network. The analyzed street network consist of vehicular traffic existing northbound HOT lane. Two scenarios were analyzed for the year 2018:

- **No-Build condition.** Vehicular traffic making left-turn onto Adams Blvd., and making a right-turn onto Figueroa St.
- **Build condition.** Vehicular traffic existing via proposed flyover ramp onto Figueroa St.

The results of the SimTraffic simulation for current HOT lanes users using the proposed flyover structure would save on average five to ten minutes of travel time during AM and PM peak hours. Consequently, the traffic travel time on local streets will potentially improve by one to two minutes during peak hours because of the re-distribution of traffic. The elevated structure will be used by drivers and the demand on the HOT off-ramp at Adams Blvd. will decrease. Signal light optimization will allow more automobiles to get through a green light with the elevated structure in place. In turn, the stop delay for eastbound/westbound Adams Blvd. will decrease.

Furthermore, the reduction in traffic congestion will potentially reduce traffic accidents at the study locations (NB I-110 off-ramp at Adams Blvd., Flower St. at Adams Blvd., and Figueroa St. at Adams Blvd.). Please note that the existing NB HOT lane at Adams Blvd. is a concentrated accident location as mentioned earlier in the purpose and need section of this document, the accident rate at this location between 10/01/2010 and 09/30/2013 is 0.23 slightly higher than the average accident rate, which is 0.21.

As seen in Tables 18 through 21, Alternative 2 will operate efficiently during AM/PM peak hours for future build-out year 2018 and horizon year 2040 as compared to the No-Build years 2018 and 2040. Impacts include traffic congestion/safety, which the proposed ramp will alleviate the existing and future traffic congestions at key analyzed intersections in the vicinity. The new ramp will also eliminate the existing choke point at Adams Blvd., thus eliminating travel delays. In addition, the new ramp will potentially decrease accident rates by minimizing queuing and traffic backup onto the freeway mainline.

### **Pedestrian and Bicycle Facilities**

The closure of Figueroa Way may represent a significant impact to pedestrian and bicycle facilities; however, mitigation measure P&B-1 will be incorporated, which intends to redesign and repurpose Figueroa Way as a bicycle and pedestrian pathway. With the incorporation of this mitigation measure, the impact will be less than significant.

### **Public Transit (Trains and Buses)**

The Expo Line is not anticipated to be permanently impacted by the proposed project. As Figueroa Way will not be re-opened to traffic, the Metro/OCTA stop on Figueroa Way will remain relocated and consolidated with the existing stop on Figueroa St. and 23<sup>rd</sup> St. As this shift represents a distance of only 0.2 miles, this impact is not considered significant.

***Avoidance, Minimization, and/or Mitigation Measures***

**Minimization T-1:** A TMP will be implemented to minimize direct and cumulative construction impacts on the community. The TMP shall be developed in consultation with the Los Angeles Department of Transportation and the California Department of Transportation, and it shall be provided with the construction plan to the City of Los Angeles Police Department and the City of Los Angeles Fire Department prior to commencement of construction activities. The TMP shall include the following implementation plans:

**Public Information:** Provide project updates to affected residents and businesses, including the general public, via brochures and mailers, community meetings, and web site information.

**Motorist Information:** Provide project information using changeable message signs and ground-mounted signs.

**Incident Management:** Implement construction zone enhanced enforcement program, freeway service patrol, and California Highway Patrol traffic handling.

**Traffic Management during Construction:** Provide a traffic lane closure chart, detour routes, pedestrian routes, residential and commercial access routes, and temporary traffic signals during construction.

**Following Policies and Guidelines during Construction:** Construction activities would be conducted in accordance with Caltrans guidelines.

**Mitigation P&B-1:** Re-design Figueroa Way to encourage pedestrian and bicycle use. This may include upgrading sidewalks, improving lighting, landscaping, adding a bike pathway or lane on Figueroa Way, and signage to ensure the safety of pedestrians, bicyclists, and persons with disabilities that use Figueroa Way as a short cut to access the surrounding community.

**Minimization BUS-1:** The Metro Silver Line bus stop on Figueroa Way will be consolidated with the currently existing bus stop on Figueroa St. and 23<sup>rd</sup> St., 0.2 miles away.

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## **2.1.9 Visual/Aesthetics**

### ***Regulatory Setting***

The National Environmental Policy Act of 1969 (NEPA) as amended establishes that the federal government use all practicable means to ensure all Americans safe, healthful, productive, and aesthetically and culturally pleasing surroundings (42 United States Code [USC] 4331[b][2]). To further emphasize this point, the Federal Highway Administration (FHWA) in its implementation of NEPA (23 USC 109[h]) directs that final decisions on projects are to be made in the best overall public interest taking into account adverse environmental impacts, including among others, the destruction or disruption of aesthetic values.

The California Environmental Quality Act (CEQA) establishes that it is the policy of the state to take all action necessary to provide the people of the state “with...enjoyment of aesthetic, natural, scenic and historic environmental qualities” (CA Public Resources Code [PRC] Section 21001[b]).

### ***Affected Environment***

According to the FHWA Guidelines for the Visual Impact Assessment (VIA) of Highway Projects (January 2015), visual quality is an aesthetic issue. Aesthetics is the study of perceptual experiences that are pleasing to people. Visual quality is, therefore, the experience of having pleasing visual perceptions. Although background and former experiences make each individual’s experience of visual quality unique, human perception of what constitutes a pleasing landscape is remarkably consistent, not only within a society but, across cultures.

A viewer observing an existing scene has a range of available responses that are inherent to all human beings. The FHWA VIA guidelines recognize three types of visual perception, corresponding to each of the three types of visual resources.

- When viewing the components of a scene’s natural environment, viewers inherently evaluate the *natural harmony* of the existing scene, determining if the composition is harmonious or inharmonious
- When viewing the components of the cultural environment, viewers evaluate the scene’s *cultural order*, determining if the composition is orderly or disorderly
- When viewing the project environment, viewers evaluate the coherence of the project components, determining if the project’s composition is coherent or incoherent

According to the FHWA Guidelines for the Visual Impact Assessment of Highway Projects (January 2015), the first phase of the FHWA Visual Impact Assessment process is the establishment phase. The purpose of this phase is to answer three basic questions, which are included below along with their answers:

**1. What is the visual character of the proposed project?**

As stated in the Visual Impact Assessment (April 2015), the elevated structure will be constructed of concrete and its form defined by crisp lines. Further, the use of texture on the outer bridge railing will be explored in the structure design phase. It is anticipated that the structure color itself will be natural concrete gray. This will match the existing structure. If color is to be used it would be in the way of possible light post or fencing, which will also be explored in the design phase. The composition of the structure and associated facilities will promote a uniform appearance with the existing structure and roadway.

**2. Are there any legal directives or social constraints that dictate the visual quality of what can be constructed?**

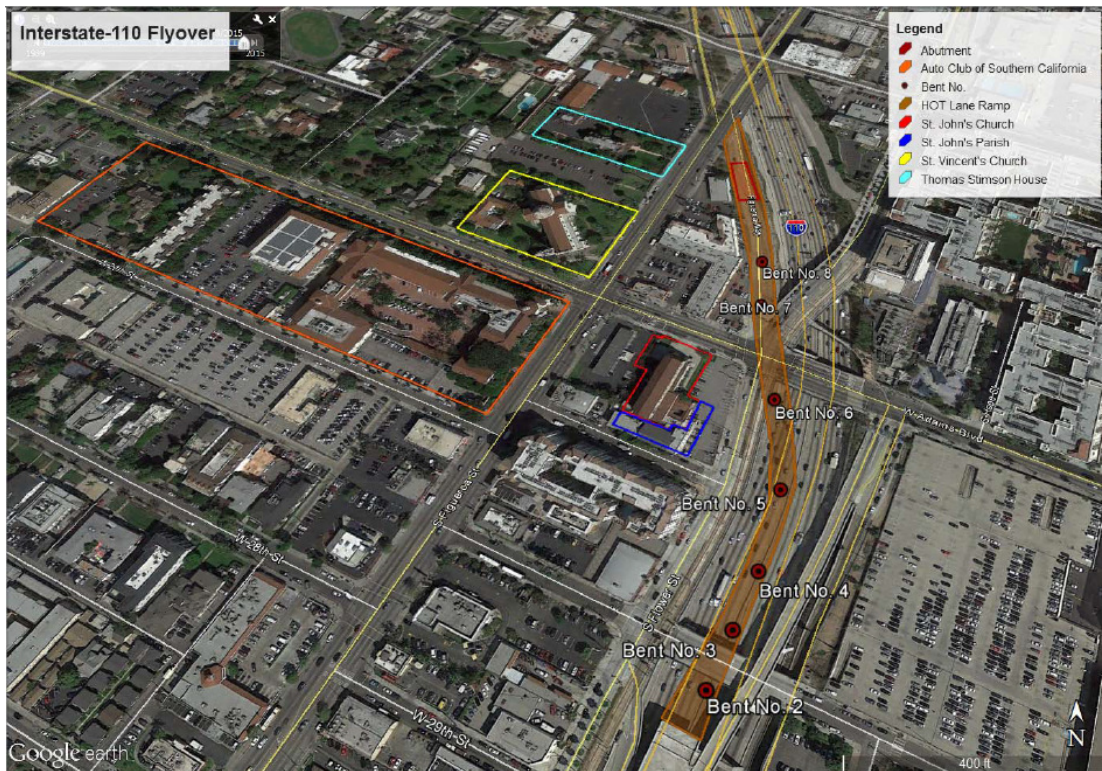
The west edge of the project area abuts the University Park Historical Preservation Overlay Zone. This designation seeks to protect and enhance the use of buildings, structures, natural features, and areas which are reminders of the City's history. Architectural treatment of the roadway, bridge, railings, and lighting should reflect the goals of the Historical Preservation Overlay Zone.

**3. To what extent is the proposed project visible?**

Viewer groups driving north on the HOT off-ramp would have views of the Downtown Los Angeles skyline in the middle ground. The Hollywood Hills and San Gabriel Mountains would constitute the background view. Views from the HOT roadway driving south in the middle ground would be of mid-rise building's rooftops and palm trees. Views of the background would be of rooflines from the University of Southern California campus. Viewer groups from the arterial streets from the west and east would see an elevated road structure. This is similar to the existing view from the terminus of the uncompleted HOT roadway at 28th St.

The existing landscape is manmade with ornamental vegetation and occasional street trees. The lay of the land within the corridor or project corridor is primarily flat and urban. The area is highly urbanized, and it is primarily a commercial area surrounded by some residential areas. According to the City's General Plan, the area is comprised of commercial, industrial, open space, and residential multiple family land use designations. Various types of building structures surround the project area, gas stations, strip malls, historical buildings, churches, and office buildings, which all make up the man-made visual resources. Single family residential units are sparse in the immediate area adjacent to the project location. The nearest single family residential area is approximately a quarter mile to the west. There are several historical buildings near the proposed elevated structure which are mapped in Figure 29. The historic buildings include the Auto Club of Southern California (pictured in Figure 30), St. John's Cathedral Episcopal Church (pictured in Figure 31), St. Vincent Catholic Church (pictured in Figure 32), and Thomas Stimson House (pictured in Figure 33), but none of the buildings will be directly impacted by the project.

**Figure 29: Map of Historical Properties near the Proposed Project**



Source: Cultural Resources Unit (August 2015)

**Figure 30: Auto Club of Southern California**



Source: Visual Impact Assessment (April 2015)



**Figure 31: St. John's Cathedral Episcopal Church**



Source: Visual Impact Assessment (April 2015)

**Figure 32: St. Vincent's Catholic Church**



Source: Visual Impact Assessment (April 2015)

**Figure 33: Thomas Stimson House**



Source: Findings of Effect (August 2015)

Figure 34 is a photograph of the existing condition and Figures 35-38 show four visual simulations that focus on potential design concepts.

**Figure 34: Existing Condition (view from Figueroa Way towards Adams Blvd. /Flower St.)**



Source: Field Visit (July 2015)

**Figure 35: Potential Design Concept 1**



Source: Caltrans Headquarters Bridge Aesthetics Unit

**Figure 36: Potential Design Concept 2**



Source: Caltrans Headquarters Bridge Aesthetics Unit

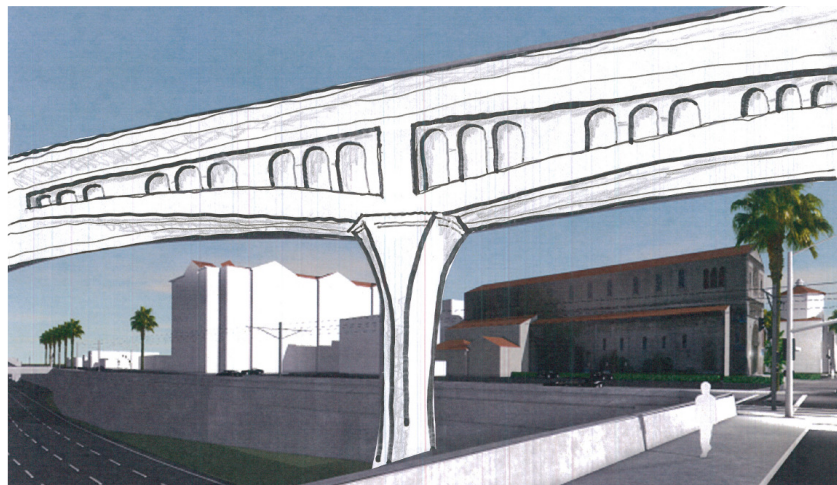


**Figure 37: Potential Design Concept 3**



Source: Caltrans Headquarters Bridge Aesthetics Unit

**Figure 38: Potential Design Concept 4**



Source: Cultural Resources Unit

## ***Environmental Consequences***

**Alternative 1 (No-Build Alternative):** Existing condition would remain; therefore, no impact would occur.

### **Alternative 2 (Build Alternative):**

#### **Potential Construction Impacts**

Construction impacts to visual resources are not anticipated as a result of the proposed Build Alternative.

#### **Potential Operational Impacts**

This is an urban area, so the proposed project would not intrude the existing visual character. The project is not on a designated Scenic Highway, nor is the highway eligible for designation. There are no Scenic Highways in close proximity to the project that would be impacted. There are no potential visual effects to shoreline and inland coastal resources. The project does not have the potential to affect scenic or visual qualities that are afforded protection under the applicable coastal jurisdictional agencies. The visual character of the proposed project will be designed to be compatible with the existing visual character of the corridor.

No impacts to visual resources are anticipated as a result of the proposed Build Alternative. Resource change (changes to visual resources as measured by changes in visual character and quality) will be low. Neighbors (people with views to the road) and highway users will not be affected by the proposed project. There are two primary viewer groups, those who would see the elevated structure from the local streets and buildings and those on the structure in vehicles. The primary viewer groups from arterial streets and buildings would be students, office workers, and shoppers. The primary viewer group of the elevated structure would be commuters and riders on buses. The completion of the Expo Line and the nearby 23rd Street Station has added additional pedestrian traffic to the area. These pedestrians walking to and from the station would be an additional viewer group. Their view of the elevated structure would be primarily as passengers on the light rail train. The train tracks across Adams Blvd. and West 28th Street are at grade and the structure would be elevated above. It is anticipated that the average response of all viewer groups will be low.

There are no permanent or temporary adverse and/or significant visual impacts as a result of the proposed Build Alternative. Please refer to Table 22 which discusses impacts on visual resources for both alternatives.



**Table 22: Impacts on Visual Resources**

Questions (Yes or No)	Alternative 1: No-Build	Alternative 2: Build
Clear change to visual environment?	No	No, the current setting is highly urbanized and disturbed. Further, the proposed structure will be designed to fit the surrounding community.
Project on designated scenic highway?	No	No
Scenic resource adversely affected?	No	No
Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	No	No

Source: Visual Impact Assessment (April 2015)

***Avoidance, Minimization, and/or Mitigation Measures***

No avoidance, minimization, and/or mitigation measures are required.

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## **2.1.10 Cultural Resources**

### ***Regulatory Setting***

The term “cultural resources” as used in this document refers to all “built environment” resources (structures, bridges, railroads, water conveyance systems, etc.), culturally important resources, and archaeological resources (both prehistoric and historic), regardless of significance. Laws and regulations dealing with cultural resources include:

The National Historic Preservation Act (NHPA) of 1966, as amended, sets forth national policy and procedures for historic properties, defined as districts, sites, buildings, structures, and objects included in or eligible for listing in the National Register of Historic Places. Section 106 of the NHPA requires federal agencies to take into account the effects of their undertakings on historic properties and to allow the Advisory Council on Historic Preservation the opportunity to comment on those undertakings, following regulations issued by the Advisory Council on Historic Preservation (36 Code of Federal Regulations (CFR) 800). On January 1, 2014, the First Amended Section 106 Programmatic Agreement (PA) between the Advisory Council, the Federal Highway Administration (FHWA), State Historic Preservation Officer (SHPO), and the Department went into effect for Department projects, both state and local, with FHWA involvement. The PA implements the Advisory Council’s regulations, 36 CFR 800, streamlining the Section 106 process and delegating certain responsibilities to the Department. The FHWA’s responsibilities under the PA have been assigned to the Department as part of the Surface Transportation Project Delivery Program (23 United States Code [USC] 327).

Historical resources are considered under the California Environmental Quality Act (CEQA), as well as CA Public Resources Code (PRC) Section 5024.1, which established the California Register of Historical Resources. PRC Section 5024 requires state agencies to identify and protect state-owned resources that meet the National Register of Historic Places listing criteria. It further specifically requires the Department to inventory state-owned structures in its rights-of-way. Sections 5024(f) and 5024.5 require state agencies to provide notice to and consult with the State Historic Preservation Officer (SHPO) before altering, transferring, relocating, or demolishing state-owned historical resources that are listed on or are eligible for inclusion in the National Register or are registered or eligible for registration as California Historical Landmarks.

## **Affected Environment**

Caltrans completed an Archaeological Survey Report (ASR) in February 2015. The Historic Property Survey Report/Historic Resources Evaluation Report (HPSR/HRER) was prepared in April 2015, and a Supplemental HPSR/HRER was completed in May 2015.

After receiving comments from Section 106 Consulting Parties (West Adams Heritage Association [WAHA], St. John's Cathedral Church, California Preservation Foundation, and the Los Angeles Conservancy) and discussions with the State Historic Preservation Officer (SHPO) the Area of Potential Effects (APE) was expanded and the supplemental HPSR/HRER was completed. A Finding of Adverse Effect (FOE) received SHPO review. SHPO determined that the proposed project would cause adverse effects to two of the five historic properties. The other three properties would be affected by the proposed project, but those effects are not expected to be adverse.

### **Area of Potential Effects (APE)**

The original APE for this project was established in consultation with Mirna Dagher, former Project Manager, on November 20, 2014. The APE maps are located in Appendix A of the HRER. The project APE map was prepared to ensure identification of significant historical, architectural, and archaeological resources listed in or eligible for inclusion in the National Register of Historic Places (National Register) that may be directly or indirectly affected by the proposed project, in compliance with 36 Code of Federal Regulations (CFR) Part 800.16(d).

The direct APE encompasses all ground disturbances associated with the project. The indirect APE extends outward from the direct APE to include parcels that directly face the proposed project and may be affected by its construction or implementation. The indirect APE also includes parcels that could have visual, noise or vibration effects caused by proposed project construction or implementation.

In response to comments from consulting parties, and following a conversation with SHPO reviewers, a supplemental APE was prepared to include additional properties in the indirect APE that may be in view of the proposed flyover. The supplemental APE was established in consultation with John Vassiliades, Project Manager, on May 6, 2015. The proposed project is located in a combination of industrial, commercial, office, retail and suburban residential setting.

## **Research Methods**

Caltrans conducted a record search at the South Central Coastal Information Center (SCCIC) of the California Historical Resources Information System (CHRIS) at the California State University, Fullerton on November 5, 2014. The record search included a review of all recorded prehistoric and historic-era archaeological sites within a 1.0-mile radius of the study area, a review of all recorded historic-era built environment resources within the APE, as well as a review of known cultural resource surveys and technical reports within the 1.0-mile radius. Sources consulted while conducting the records search include:

- National Register of Historic Places
- California Register of Historical Resources
- California Historical Landmarks
- California Points of Historical Interest
- California Historic Property Data File for Los Angeles County, dated April 5, 2012
- Department of Parks and Recreation Series 523 Forms, including Built Environment
- Archaeological Site Records

The records search identified 55 studies within 1.0-mile of the study area (refer to project ASR for a complete bibliography). Of these, four (4) studies include portions of the Project Study Area. According to these results, the Study Area was previously surveyed for archaeological resources in 1999, but no prehistoric or historic-era archaeological resources were identified as a result of that study (Iverson 2000).

The following sources were consulted in the process of preparing the historic context statement and evaluating historic-era properties in the APE boundaries:

- Caltrans *State and Local Bridge Survey* (1989 and updates, December 2015)
- *Los Angeles Times* Index (October- December 2014)
- Los Angeles Public Library, California Index and Photograph Collection (January 2015)
- City of Los Angeles Department of Building & Safety (December 2014) and
- University of Southern California, Digital Archives (January 2015)

## **Consultation and Interested Parties**

### **Native American Heritage Commission, Tribes, Groups, and Individuals**

During the identification phase, Caltrans cultural resources staff sent a request for a search of the Sacred Lands File to the Native American Heritage Commission (NAHC). The letter requested information about sacred or traditional cultural properties that may be located in the identified Project Study Area. Katy Sanchez, NAHC Program Analyst replied stating that Sacred Lands file search did not result in identification of any sacred lands within the proposed Study Area. With it she provided a list of local groups and individuals to contact for further information regarding local knowledge of sacred lands or other Native American cultural resources.

Caltrans cultural resources staff sent letters to six of the nine Native American groups and individuals on the list provided by the NAHC. No address was provided for the other three individuals, but two were contacted by telephone. A total of eight of the nine Native American groups and individuals were asked to provide pertinent information or to express any concerns they may have about the proposed project. Comments from three individuals were received in response to Caltrans' request for information letters. Andrew Salas stated that the Study Area may be sensitive. Anthony Morales stated that the Area is sensitive. Both Salas and Morales recommend monitoring. John Tommy Rosas said that he was not concerned about the project and it is not in a sensitive area. The results of consultation with Native American representatives were detailed in Appendix B of the ASR.

Although two of the Native Americans contacted said the Area was sensitive, no archaeological resources or specific Traditional Cultural Places were identified in the project's direct APE, which is considered to have a low potential to encounter buried archaeological deposits.

### **Historic Groups**

Efforts to include the public in the Section 106 process have been made throughout the life of this project study. During the cultural resources identification phase, letters requesting information on resources that may not be readily apparent were sent to the City of Los Angeles, Office of Historic Resources, Department of City Planning, The Los Angeles Conservancy, Los Angeles City Historical Society, Historical Society of Southern California, and WAHA.

On October 7, 2014, a courtesy meeting was initiated by Caltrans staff with representatives of St. John's Cathedral because of the proximity of St. John's Episcopal Church to the proposed project. It was held at the Caltrans District 7 office with St. John's Cathedral leaders, Metro and Caltrans staff (refer to Appendix B of the FOE for a copy of the agenda). In the meeting, copies of letters sent in 2013 in response to the Notice of Preparation were provided to Caltrans. An overview of the project, its proposed schedule and the Section 106 process was provided by various members of Caltrans and Metro staff.

St. John's Cathedral held an "informational forum" on December 3, 2014, and requested Caltrans and Metro's presence. A presentation of information regarding the project was requested. Given the early stages of the project development, the information presented at this workshop was preliminary. The information provided at this meeting included funding, history of the project as well as purpose and need, project development/environmental process, the proposed build alternative, traffic, visual resources overview, historic properties and Section 106 compliance as well as the project schedule (refer to Appendix B of the FOE for the invitation and agenda). Questions from the public were answered to the extent possible at that point in project development.

At the informational forum in December 2014, one of the cultural resources-related questions was in reference to consulting parties. Two months later, letters requesting consulting party status were received from various parties (refer to Appendix C and Table 3 of the FOE). The project APE map and project description were sent via e-mail to each consulting party requestor as noted below. The project HPSR and HRER were circulated to consulting parties. Based on comments received, and following a conversation with SHPO staff, a Supplemental APE map, Supplemental HPSR and Supplemental HRER technical reports were submitted to SHPO as well as to consulting parties.

The purpose of the following meeting held on April 22, 2015 at 11:00 a.m. in Caltrans District 7 offices was to give Section 106 Consulting Parties the opportunity to discuss potential project design alternatives with Caltrans and Metro staff. Caltrans held the meeting with all consulting parties to present four design concepts for the proposed flyover. The meeting was attended by members of the Project Design Team (PDT) with two representatives each from WAHA and St. John's Cathedral, and one from the Los Angeles Conservancy. As a courtesy, City of Los Angeles Office of Historic Resources and Council District 9 staff were included. No representatives of California Preservation Foundation attended. A PowerPoint presentation prepared by the PDT was presented. It briefly defined Section 106 and "historic properties," described historic properties in the project original APE and adverse effects, identified the current project status, further defined consulting and "other consulting parties." During the discussion, Caltrans staff emphasized that it was important for consulting parties as well as agency staff to acknowledge and understand the others' goals. Visual simulations of four design concepts were presented including views east, west, south with "bird's eye," as well as other view variations. After the presentation, a survey was distributed to poll attendants on which proposed design concept was preferred. None were identified as a preferred design alternative nor did attendees provide Caltrans with alternative design ideas that would be acceptable to the consulting parties. A few recommended park facilities in the area beneath the proposed flyover.

## **Field Methods**

### **Archaeological Survey**

Once the APE was defined, a Caltrans archaeologist conducted a windshield survey of the entire project area and an intensive pedestrian foot survey to account for the Area of Direct Impact (ADI) within the direct APE. The purpose of the archaeological survey was to locate, record, and evaluate archaeological resources within the study area. During the intensive pedestrian survey, any areas of exposed ground surface for artifacts (e.g., flaked stone tools, tool-making debris, stone milling tools, fire-affected rock, prehistoric ceramics), soil discoloration that might indicate the presence of a prehistoric cultural midden, soil depressions, and features indicative of the former presence of structures or buildings (e.g., standing exterior walls, postholes, foundations, wells, mines) or historic debris (e.g., metal, glass, ceramics). One transect was walked over the middle of each of the three unpaved areas. Due to the limited width of the unpaved areas, only one transect was necessary at each area with visibility.

### **Reconnaissance-Level Built Environment Survey**

Once the APE was defined, staff architectural historians conducted a reconnaissance-level survey to account for all properties in the APE. The reconnaissance phase was completed using a list of all parcels in the project APE. This determined, in part, which properties would be studied in further detail and to exclude properties which met the requirements in the *First Amended Section 106 Programmatic Agreement* Attachment 4, thus requiring no further evaluation.

Additional background research to confirm and/or corroborate building construction dates was performed through the Los Angeles County Tax Assessor's Office and/or City of Los Angeles Department of Planning & Building Research, as well as review of area maps. Normally properties completed before 1965, which have not been substantially altered, and are recognizable to what may have been their periods of significance may be, were evaluated for National and California Register eligibility, using criteria A–D for National and criteria 1–4 for the California Register. Those properties are the survey population for the purposes of this report. That survey population is identified in the HRER and supplemental HRER and includes five properties.

### **Intensive-Level Built Environment Survey**

Intensive surveys were conducted in December 2014, and May 2015 once reconnaissance surveys had identified properties that could not be exempt for evaluation according to Attachment 4 of the *First Amended Section 106 Programmatic Agreement*. Intensive surveys included properties which were found to require evaluation for historic significance (including “borderline” properties, or those which may or may not ultimately be intensively evaluated). For properties being evaluated, generally, all salient existing building permits were reviewed and noted.

In order to make professional judgments regarding historic significance, National and California Register criteria for evaluation, along with appropriate integrity assumptions, were applied. The results of various other surveys in the area were reviewed including:

- Cultural Resources Documentation Report: Expanded Hoover Redevelopment Area (Community Redevelopment Agency of the City of Los Angeles (CRA/LA) 1985)
- Historic Architecture Survey Harbor Freeway Transitway/Northern Terminus to the I-110 Harbor Freeway Transitway (Caltrans 1991)
- Northern Terminus to the I-110 Harbor Freeway Transitway: Supplemental Historic Architecture Survey Report (Caltrans 1991)
- Northern Terminus to the I-110 Harbor Freeway Transitway: Finding of Effect Re Evaluation (Caltrans 1994)
- Council District Nine Revitalization/Recovery Program Final Environmental Impact Report (City of Los Angeles 1995)
- Mid-City/Exposition Corridor Light Rail Transit Project (Metro 2004)
- Reconnaissance Level Survey (CRA/LA 2005) Survey LA: Historic Resources Survey Report of the Southeast Los Angeles Community Plan Area (City of Los Angeles Department of City Planning, Office of Historic Resources 2012)



For this project, both previously identified historic resources and previously unidentified properties were field checked and evaluated for historic significance, according to National and California Register criteria. Resources subject to review were not limited to buildings, but included structures, objects and bridges and linear resources. Previously unidentified areas that might qualify as historic districts were considered for eligibility as well.

### **Description of Historic Properties**

Each of the resources described below is a historic property as defined in Section 106 of the NHPA. St. John's Church and St. John's Parish Hall are each cultural resources for NEPA purposes. Both are also considered historical resources as defined in CEQA. In the APE Map approved on November 20, 2014 the following properties are considered historically significant:

- **St. John's Episcopal Church 510-518 West Adams Blvd., Los Angeles.** This church was listed in the National Register on May 5, 2000. It is also locally designated as Historic-Cultural Monument (#516, January 22, 1991). The property is listed in the California Register as well.
- **St. John's Parish Hall, 515-517 West 27th St., Los Angeles.** St. John's Parish Hall was determined eligible for listing in the National Register on September 24, 2002 through the Section 106 process. It is therefore eligible for listing in the California Register.

In response to comments from consulting parties, and following a conversation with SHPO staff, a supplemental APE was prepared to include additional properties in the indirect APE that may be in view of the proposed flyover. That supplemental APE was established in consultation with John Vassiliades, Project Manager, on May 6, 2015. The proposed project is located in a combination industrial, commercial office/retail and suburban residential setting.

Each of the resources described below is a historic property as defined in Section 106 of the NHPA. All three (3) are cultural resources for NEPA purposes and are also considered historical resources as defined in CEQA.

- **Automobile Club of Southern California**, 2601 South Figueroa St. (alternate addresses: 650 West Adams Blvd. and 661 West 27th St. Los Angeles. The property was determined eligible for listing in the National Register on February 7, 1992 (FHWA). It is also a locally designated Historic-Cultural Monument (#72, February 3, 1971). It is eligible for listing in the California Register
- **St. Vincent de Paul Church**, 601 West Adams Blvd., Los Angeles. The property was determined eligible for listing in the National Register on June 21, 1982 (FHWA). It is also a locally designated Historic Monument (#90, July 2, 1971). It is eligible for listing in the California Register
- **Thomas Stimson House**, 2421 South Figueroa St. Los Angeles. This property was listed in the National Register on March 30, 1978. It is also a locally designated Historic-Cultural Monument (#72, May 16, 1979). The property is listed in the California Register

## **Environmental Consequences**

**Alternative 1 (No-Build Alternative):** The existing condition would remain; therefore, no impact would occur.

### **Alternative 2 (Build Alternative):**

#### **Potential Construction Impacts**

Construction impacts on cultural resources may include a temporary increase to noise levels during the construction period on surrounding historical properties, but will be minimized by implementing avoidance measures N-1, minimization measures N-2 through N-4, and GV-1. Potential traffic circulation issues during construction will be minimized with the implementation of minimization measure T-1. Potential increase in dirt, and dust from construction materials will be minimized by incorporating minimization measures WQ-1 through WQ-8, and minimization measures AQ-1 through AQ-16.

#### **Potential Operational Impacts**

The presence of the flyover has the potential to obscure historically significant views towards and from St. John's Episcopal Church. The proposed structure would visually impair the views of the church's main entrance/front steps to the southeast by the addition of ramp and columns to the east of the church.

The proposed Build Alternative may visually impair the view from the front (north) steps of St. John's Episcopal Church looking northeast across West Adams Blvd. The north end of the off-ramp at South Figueroa Street and Figueroa Way would not be visible from St. John's Episcopal Church. The proposed Build Alternative may visually impair St. John's Parish Hall as well, because it is historically linked to St. John's Church.

Based on this evaluation, the proposed Build Alternative would have an adverse effect on historically significant views to and from St. John's Episcopal Church and St. John's Parish Hall as a result of the introduction of new visual elements; thereby further diminishing both historic properties integrity of setting from their periods of significance.

Caltrans finds that the undertaking may result in adverse effects on two of the five historic properties:

- **St. John's Episcopal Church**, 510-518 West Adams Blvd., Los Angeles
- **St. John's Parish House**, 515-517 West 27th St., Los Angeles

### *I-110 Flyover Project*

Caltrans finds that the undertaking is expected to cause effects, but they would not be adverse to three of the five historic properties:

- **Automobile Club of Southern California**, 2601 South Figueroa St. (alternate addresses: 650 West Adams Blvd. and 661 West 27th St., Los Angeles)
- **St. Vincent de Paul Church**, 601 West Adams Blvd., Los Angeles
- **Thomas Stimson House**, 2421 South Figueroa St., Los Angeles

An overall finding of adverse effect was made for this undertaking. St. John's Episcopal Church and St. John's Parish House are historic properties for which the proposed project is expected to introduce visual elements that would be out of character and thus result in adverse effects. With the implementation of avoidance, minimization and/or mitigation measures CR-1 through CR-4, Caltrans will prepare a Memorandum of Agreement (MOA) to address effects. Therefore, the impact on the two historical properties will be less than significant.

The FOE was transmitted to consulting parties for review and received comments from each. Caltrans will prepare a Memorandum of Agreement (MOA) to address effects.

Caltrans is consulting to resolve adverse effects pursuant to First Amended Section 106 PA, Stipulation XI, 36 CFR 800.6(a) and 800.6(b) (1). The Finding of Adverse Effect (August 2015) served only to obtain SHPO concurrence that the undertaking is expected to cause adverse effects to on historic properties. Preliminary mitigation measures will be explored in more detail during consultation with SHPO and Consulting Parties. A Memorandum of Agreement (MOA) will be completed following consultation, and preliminary mitigation measures are listed in the section titled Avoidance, Minimization, and/or Mitigation Measures.

No Section 4(f) resources will be impacted or used for the proposed project. See Appendix B for further discussion of Section 4(f) resources.

***Avoidance, Minimization, and/or Mitigation Measures***

**Mitigation CR-1:** Develop an interpretive program that summarizes the history of West Adams, including street signage that would be compatible with the My Figueroa Project, panels, exhibits, and/or educational materials, as appropriate to the historic property

**Mitigation CR-2:** Design and fabricate a mobile exhibit that summarizes the history of West Adams, including St. John's Episcopal Church, that could be used by the City of Los Angeles for display at appropriate citizen meetings associated with the City's upcoming planning process for My Figueroa Project

**Mitigation CR-3:** Design and implement a historically sensitive and pedestrian friendly streetscape that includes landscaping and lighting that embraces the unique West Adams community and reflects the goals of the My Figueroa Project

**Mitigation CR-4:** Prepare a Historic Structures Report/Preservation Plan to guide future preservation of the St. John's Episcopal Church. A Historic Structures Report/Preservation Plan provide a valuable foundation for the rehabilitation, restoration, stabilization or reconstruction of a historic building. The document summarizes the history of the construction, alterations, owners, and significant events at the property in order to informed management or development decisions and understand the effects of those decisions on the property's historic fabric and guides a plan of action for future work on the building

**Avoidance CR-5:** If cultural materials are discovered during construction, all earth-moving activity within and around the immediate discovery area will be diverted until a qualified archaeologist can assess the nature and significance of the find. If human remains are discovered, State Health and Safety Code Section 7050.5 states that further disturbances and activities shall stop in any area or nearby area suspected to overlie remains, and the County Coroner contacted. Pursuant to California Public Resources Code (PRC) Section 5097.98, if the remains are thought to be Native American, the coroner will notify the Native American Heritage Commission (NAHC), which will then notify the Most Likely Descendent (MLD). At this time, the person who discovered the remains will contact Kelly Ewing-Toledo, Senior Environmental Planner Cultural Resources Branch, so that they may work with the MLD on the respectful treatment and disposition of the remains. Further provisions of PRC 5097.98 are to be followed as applicable.

**Avoidance N-1:** Equipment Noise Control will be applied to revising old equipment and designing new equipment to meet acceptable noise levels.

- Mufflers are very effective devices which reduce the noise emanating from the intake or exhaust of an engine, compressor, or pump. The fitting of effective mufflers on all new equipment and retrofitting of mufflers on existing equipment is necessary to yield an immediate noise reduction at all types of road construction sites
- Sealed and lubricated tracks for crawler mounted equipment will lessen the sound radiated from the track assembly resulting from metal to soil and metal to metal contact. Contractors, site engineers, and inspectors should ensure that the tracks are kept in excellent condition by periodic maintenance and lubrication
- Lowering exhaust pipe exit height closer to the ground can result in an off-site noise reduction. Barriers are more effective in attenuating noise when the noise source is closer to ground level
- General noise control technology can have substantially quieter construction equipment when manufacturers apply state-of-the-art technology to new equipment or repair old equipment to maintain original equipment noise levels

**Minimization N-2:** In-Use Noise Control where existing equipment is not permitted to produce noise levels in excess of specified limits.

Any equipment that produces noise levels less than the specified limits would not be affected. However, those exceeding the limit would be required to meet compliance by repair, retrofit, or replacement. New equipment with the latest noise sensitive components and noise control devices are generally quieter than older equipment, if properly maintained and inspected regularly. They should be repaired or replaced if necessary to maintain the in-use noise limit. All equipment applying the in use noise limit would achieve an immediate noise reduction if properly enforced.

**Minimization N-3:** Site Restrictions is an attempt to achieve noise reduction through modifying the time, place, or method of operation of a particular source. Site restrictions should be applied to achieve noise reduction through different methods, resulting in an immediate reduction of noise emitted to the community without requiring any modification to the source noise emissions. The methods include shielding with barriers for equipment and site, truck rerouting and traffic control, time scheduling, and equipment relocation. The effectiveness of each method depends on the type of construction involved and the site characteristics.

Shielding with barriers should be implemented at an early stage of a project to reduce construction equipment noise. The placement of barriers must be carefully considered to reduce limitation of site access. Barriers may be natural or man-made, such as excess land fill used as a temporary berm strategically placed to act as a barrier.

- Efficient rerouting of trucks and control of traffic activity on construction site will reduce noise due to vehicle idling, gear shifting and accelerating under load. Planning proper traffic control will result in efficient workflow and reduce noise levels. In addition, rerouting trucks does not reduce noise levels but transfers noise to other areas that are less sensitive to noise
- Time scheduling of activities should be implemented to minimize noise impact on exposed areas. Local activity patterns and surrounding land uses must be considered in establishing site curfews. However, limiting working hours can decrease productivity. Sequencing the use of equipment with relatively low noise levels versus with relatively high noise levels during noise sensitive periods is an effective noise control measure
- Equipment location should be as far from noise sensitive land use areas as possible. The contractor should substitute quieter equipment or use quieter construction processes at or near noise sensitive areas

**Minimization N-4:** Personal Training of operators and supervisors is needed to become more aware of the construction site noise problems.

Educating contractors and their employees to be sensitive to noise impact problems and noise control methods. This may be one of the most cost-effective ways to help operators and supervisors become more aware of the construction site noise problem and to implement the various methods of improving the conditions. A training program for equipment operators is recommended to instruct them in methods of operating their equipment to minimize environmental noise. Many training programs are presently given on the subject of job safety. This can be extended to include the impact due to noise and of abatement.

**Minimization GV-1:** As recommended in the Noise and Vibration Manual (September 2013), impact pile driving can be the most significant source of vibration at construction sites. The principal means of reducing vibration from impact pile driving are listed below. Some of these methods may not be appropriate in specific situations, but where they are practical; they can often be used to reduce vibration to an acceptable level.

- **Jetting:** Jetting is a pile driving aid in which a mixture of air and water is pumped through high-pressure nozzles to erode the soil adjacent to the pile to facilitate placement of the pile. Jetting can be used to bypass shallow, hard layers of soil that would generate high levels of vibration at or near the surface if an impact pile driver was used
- **Pre-drilling:** Pre-drilling a hole for a pile can be used to place the pile at or near its ultimate depth, thereby eliminating most or all impact driving.
- **Using cast-in-place or auger cast piles:** Using cast-in-place or auger cast piles eliminates impact driving and limits vibration generation to the small amount generated by drilling, which is negligible

- **Using non-displacement piles:** Use of non-displacement piles such as H piles may reduce vibration from impact pile driving because this type of pile achieves its capacity from end bearing rather than from large friction transfer along the pile shaft
- **Using pile cushioning:** With pile cushioning, a resilient material is placed between the driving hammer and the pile to increase the period of time over which the energy from the driver is imparted to the pile. Keeping fresh, resilient cushions in the system can reduce the vibration generated by as much as a factor of 2 (Woods 1997)
- **Scheduling for specific times to minimize disturbance at nearby vibration-sensitive sites:** Adverse effects can be avoided if pile driving is not scheduled for times at which vibration could disturb equipment or people. For example, if pile driving near a residential area can be scheduled during business hours on weekdays, many people will be at work and will therefore not be affected
- **Using alternative nonimpact drivers:** Several types of proprietary pile driving systems have been designed specifically to reduce impact induced vibration by using torque and down-pressure or hydraulic static loading. These methods would be expected to significantly reduce adverse vibration effects from pile placement. The applicability of these methods depends in part on the type of soil

**Minimization T-1:** A TMP will be implemented to minimize direct and cumulative construction impacts on the community. The TMP shall be developed in consultation with the Los Angeles Department of Transportation and the California Department of Transportation, and it shall be provided with the construction plan to the City of Los Angeles Police Department and the City of Los Angeles Fire Department prior to commencement of construction activities. The TMP shall include the following implementation plans:

**Public Information:** Provide project updates to affected residents and businesses, including the general public, via brochures and mailers, community meetings, and web site information.

**Motorist Information:** Provide project information using changeable message signs and ground-mounted signs.

**Incident Management:** Implement construction zone enhanced enforcement program, freeway service patrol, and California Highway Patrol traffic handling.

**Traffic Management during Construction:** Provide a traffic lane closure chart, detour routes, pedestrian routes, residential and commercial access routes, and temporary traffic signals during construction.

**Minimization WQ-1:** Storm drain inlet protection will be deployed throughout the project and the roadway should be swept regularly to minimize dirt and dust.

**Minimization WQ-2:** Concrete wastes will be managed through the use of concrete washout facilities.

**Minimization WQ-3:** Temporary silt fence shall be utilized to protect existing vegetation. Location of the temporary fencing shall be shown on the project plans.

**Minimization WQ-4:** Various waste management, materials handling, and other housekeeping BMPs will be used throughout the duration of the project.

**Minimization WQ-5:** Construction sequencing will be scheduled to minimize storm water quality impacts.

**Minimization WQ-6:** A Water Pollution Control Plan will be prepared, and implemented during the construction stage.

**Minimization WQ-7:** Comply with the provisions of the National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Order No. 2009-0009-DWQ, NPDES No. CAS000002) (i.e. Construction General Permit).

**Minimization WQ-8:** Comply with the provisions identified in the NPDES Statewide Storm Water Permit Waste Discharge Requirements for the State of California, Department of Transportation (Order No. 2012-0011-DWQ, NPDES No. CAS000003).

**Minimization AQ-1:** Compliance with Caltrans' Standard Specifications in Section 14 (2010) will be required.

**Minimization AQ-2:** Section 14-9.01 specifically requires compliance with all applicable laws and regulations related to air quality, including SCAQMD rules and regulations and local ordinances.

**Minimization AQ-3:** Section 14-9.02 is directed at controlling dust. If dust palliative materials other than water are to be used, material specifications are contained in Section 18.

**Minimization AQ-4:** Apply water or dust palliative to the site and equipment as frequently as necessary to control fugitive dust emissions. Fugitive emissions generally must meet a "no visible dust" criterion either at the point of emission or at the right of way line as required by the SCAQMD.

**Minimization AQ-5:** Spread soil binder on any unpaved roads used for construction purposes, and all project construction parking areas.

**Minimization AQ-6:** Wash off trucks as they leave the R/W as necessary to control fugitive dust emissions.

**Minimization AQ-7:** Properly tune and maintain construction equipment and vehicles. Use low-sulfur fuel in all construction equipment as provided in California Code of Regulations Title 17, Section 93114.

**Minimization AQ-8:** Develop a dust control plan documenting sprinkling, temporary paving, speed limits, and expedited re-vegetation of disturbed slopes as needed to minimize construction impacts to existing communities.



**Minimization AQ-9:** Locate equipment and materials storage sites at least 500 feet from the sensitive receptors. Keep construction areas clean and orderly.

**Minimization AQ-10:** Establish environmentally sensitive areas (ESAs) or their equivalent at least 500 feet away from sensitive air receptors within which construction activities such as extended idling, material storage, and equipment maintenance, would be prohibited, to the extent feasible.

**Minimization AQ-11:** Use track-out reduction measures such as gravel pads at project access points to minimize dust and mud deposits on roads affected by construction traffic.

**Minimization AQ-12:** Cover all transported loads of soils and wet materials prior to transport, or provide adequate freeboard (space from the top of the material to the top of the truck) to minimize emission of dust (particulate matter) during transportation.

**Minimization AQ-13:** Promptly and regularly remove dust and mud that are deposited on paved, public roads due to construction activity and traffic to decrease particulate matter.

**Avoidance AQ-14:** Route and schedule construction traffic to avoid peak travel times as much as possible, to reduce congestion and related air quality impacts caused by idling vehicles along local roads.

**Minimization AQ-15:** Install mulch or plant vegetation as soon as practical after grading to reduce windblown particulates in the area. Be aware that certain methods of mulch placement, such as straw blowing, may themselves cause dust and visible emission issues, and may need to use controls such as dampened straw.

**Avoidance AQ-16:** While unlikely, if naturally occurring asbestos, serpentine, or ultramafic rock is discovered during grading operations Section 93105, Title 17 of the California Code of Regulations requires notification to the SCAQMD by the next business day and implementation of the following measures within 24 hours:

- Unpaved areas subject to vehicle traffic must be stabilized by being kept adequately wetted, treated with a chemical dust suppressant, or covered with material that contains less than 0.25 percent asbestos
- The speed of any vehicles and equipment traveling across unpaved areas must be no more than fifteen (15) miles per hour unless the road surface and surrounding area is sufficiently stabilized to prevent vehicles and equipment traveling more than 15 miles per hour from emitting dust that is visible crossing the project boundaries
- Storage piles and disturbed areas not subject to vehicular traffic must be stabilized by being kept adequately wetted, treated with a chemical dust suppressant, or covered with material that contains less than 0.25 percent asbestos
- Activities must be conducted so that no track-out from any road construction project is visible on any paved roadway open to the public

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## **2.2 Physical Environment**

### **Regulatory Setting**

#### **Water Quality and Storm Water Runoff**

##### **Federal Requirements**

###### **Clean Water Act**

In 1972, Congress amended the Federal Water Pollution Control Act, making the addition of pollutants to the waters of the United States (U.S.) from any point source<sup>1</sup> unlawful unless the discharge is in compliance with a National Pollutant Discharge Elimination System (NPDES) permit. This act and its amendments are known today as the Clean Water Act (CWA). Congress has amended the act several times. In the 1987 amendments, Congress directed dischargers of storm water from municipal and industrial/construction point sources to comply with the NPDES permit scheme. The following are important CWA sections:

- Sections 303 and 304 require states to issue water quality standards, criteria, and guidelines
- Section 401 requires an applicant for a federal license or permit to conduct any activity that may result in a discharge to waters of the U.S. to obtain certification from the state that the discharge will comply with other provisions of the act. This is most frequently required in tandem with a Section 404 permit request (see below)
- Section 402 establishes the NPDES, a permitting system for the discharges (except for dredge or fill material) of any pollutant into waters of the U.S. Regional Water Quality Control Boards (RWQCB) administer this permitting program in California. Section 402(p) requires permits for discharges of storm water from industrial/construction and municipal separate storm sewer systems (MS4s)
- Section 404 establishes a permit program for the discharge of dredge or fill material into waters of the United States. This permit program is administered by the U.S. Army Corps of Engineers (USACE)

The goal of the CWA is “to restore and maintain the chemical, physical, and biological integrity of the Nation’s waters.”

The USACE issues two types of 404 permits: General and Standard permits. There are two types of General permits: Regional permits and nationwide permits. Regional permits are issued for a general category of activities when they are similar in nature and cause minimal environmental effect. Nationwide permits are issued to allow a variety of minor project activities with no more than minimal effects.

Ordinarily, projects that do not meet the criteria for a Nationwide Permit may be permitted under one of the USACE’s Standard permits. There are two types of Standard permits: Individual permits and Letters of Permission. For Standard permits, the USACE decision to approve is based on compliance with U.S. Environmental Protection Agency’s Section 404 (b) (1) Guidelines (U.S. EPA

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<sup>1</sup> A point source is any discrete conveyance such as a pipe or a man-made ditch.

Code of Federal Regulations [CFR] 40 Part 230), and whether the permit approval is in the public interest. The Section 404(b) (1) Guidelines (Guidelines) were developed by the U.S. EPA in conjunction with the USACE, and allow the discharge of dredged or fill material into the aquatic system (waters of the U.S.) only if there is no practicable alternative which would have less adverse effects. The Guidelines state that the USACE may not issue a permit if there is a least environmentally damaging practicable alternative (LEDPA) to the proposed discharge that would have lesser effects on waters of the U.S. and not have any other significant adverse environmental consequences. According to the Guidelines, documentation is needed that a sequence of avoidance, minimization, and compensation measures has been followed, in that order. The Guidelines also restrict permitting activities that violate water quality or toxic effluent<sup>2</sup> standards, jeopardize the continued existence of listed species, violate marine sanctuary protections, or cause “significant degradation” to waters of the U.S. In addition, every permit from the USACE, even if not subject to the Section 404(b) (1) Guidelines, must meet general requirements. See 33 CFR 320.4. A discussion of the LEDPA determination, if any, for the document is included in the Wetlands and Other Waters section.

## **State Requirements**

### **Porter-Cologne Water Quality Control Act**

California’s Porter-Cologne Act, enacted in 1969, provides the legal basis for water quality regulation within California. This act requires a “Report of Waste Discharge” for any discharge of waste (liquid, solid, or gaseous) to land or surface waters that may impair beneficial uses for surface and/or groundwater of the state. It predates the CWA and regulates discharges to waters of the state. Waters of the state include more than just waters of the U.S., like groundwater and surface waters not considered waters of the U.S. Additionally, it prohibits discharges of “waste” as defined, and this definition is broader than the CWA definition of “pollutant.” Discharges under the Porter-Cologne Act are permitted by Waste Discharge Requirements (WDRs) and may be required even when the discharge is already permitted or exempt under the CWA.

The State Water Resources Control Board (SWRCB) and RWQCBs are responsible for establishing the water quality standards (objectives and beneficial uses) required by the CWA and regulating discharges to ensure compliance with the water quality standards. Details about water quality standards in a project area are included in the applicable RWQCB Basin Plan. In California, Regional Boards designate beneficial uses for all water body segments in their jurisdictions and then set criteria necessary to protect these uses. As a result, the water quality standards developed for particular water segments are based on the designated use and vary depending on that use. In addition, the SWRCB identifies waters failing to meet standards for specific pollutants. These waters are then state-listed in accordance with CWA Section 303(d). If a state determines that waters are impaired for one or more constituents and the standards cannot be met through point source or non-point source controls (NPDES permits or WDRs), the CWA requires the establishment of Total Maximum Daily Loads (TMDLs). TMDLs specify allowable pollutant loads from all sources (point, non-point, and natural) for a given watershed

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<sup>2</sup> The U.S. EPA defines “effluent” as “wastewater, treated or untreated, that flows out of a treatment plant, sewer, or industrial outfall.”

### **State Water Resources Control Board and Regional Water Quality Control Boards**

The SWRCB administers water rights, sets water pollution control policy, and issues water board orders on matters of statewide application, and oversees water quality functions throughout the state by approving Basin Plans, TMDLs, and NPDES permits. RWCQB's are responsible for protecting beneficial uses of water resources within their regional jurisdiction using planning, permitting, and enforcement authorities to meet this responsibility.

### **National Pollutant Discharge Elimination System (NPDES) Program**

Municipal Separate Storm Sewer Systems (MS4) Section 402(p) of the CWA requires the issuance of NPDES permits for five categories of storm water discharges, including Municipal Separate Storm Sewer Systems (MS4s). An MS4 is defined as "any conveyance or system of conveyances (roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, human-made channels, and storm drains) owned or operated by a state, city, town, county, or other public body having jurisdiction over storm water, that is designed or used for collecting or conveying storm water." The SWRCB has identified the Department as an owner/operator of an MS4 under federal regulations. The Department's MS4 permit covers all Department rights-of-way, properties, facilities, and activities in the state. The SWRCB or the RWQCB issues NPDES permits for five years, and permit requirements remain active until a new permit has been adopted.

The Department's MS4 Permit (Order No. 2012-0011-DWQ) was adopted on September 19, 2012 and became effective on July 1, 2013. The permit has three basic requirements:

1. The Department must comply with the requirements of the Construction General Permit (see below)
2. The Department must implement a year-round program in all parts of the State to effectively control storm water and non-storm water discharges
3. The Department storm water discharges must meet water quality standards through implementation of permanent and temporary (construction) Best Management Practices (BMPs), to the Maximum Extent Practicable, and other measures as the SWRCB determines to be necessary to meet the water quality standards

To comply with the permit, the Department developed the Statewide Storm Water Management Plan (SWMP) to address storm water pollution controls related to highway planning, design, construction, and maintenance activities throughout California. The SWMP assigns responsibilities within the Department for implementing storm water management procedures and practices as well as training, public education and participation, monitoring and research, program evaluation, and reporting activities. The SWMP describes the minimum procedures and practices the Department uses to reduce pollutants in storm water and non-storm water discharges. It outlines procedures and responsibilities for protecting water quality, including the selection and implementation of Best Management Practices (BMPs). The proposed project will be programmed to follow the guidelines and procedures outlined in the latest SWMP to address storm water runoff.

## **Construction General Permit**

Construction General Permit (Order No. 2009-009-DWQ), adopted on September 2, 2009, became effective on July 1, 2010. The permit regulates storm water discharges from construction sites that result in a Disturbed Soil Area (DSA) of one acre or greater, and/or are smaller sites that are part of a larger common plan of development. By law, all storm water discharges associated with construction activity where clearing, grading, and excavation result in soil disturbance of at least one acre must comply with the provisions of the General Construction Permit. Construction activity that results in soil disturbances of less than one acre is subject to this Construction General Permit if there is potential for significant water quality impairment resulting from the activity as determined by the RWQCB. Operators of regulated construction sites are required to develop storm water pollution prevention plans; to implement sediment, erosion, and pollution prevention control measures; and to obtain coverage under the Construction General Permit.

The 2009 Construction General Permit separates projects into Risk Levels 1, 2, or 3. Risk levels are determined during the planning and design phases, and are based on potential erosion and transport to receiving waters. Requirements apply according to the Risk Level determined. For example, a Risk Level 3 (highest risk) project would require compulsory storm water runoff pH and turbidity monitoring, and before construction and after construction aquatic biological assessments during specified seasonal windows. For all projects subject to the permit, applicants are required to develop and implement an effective Storm Water Pollution Prevention Plan (SWPPP). In accordance with the Department's Standard Specifications, a Water Pollution Control Plan (WPCP) is necessary for projects with DSA less than one acre.

## **Section 401 Permitting**

Under Section 401 of the CWA, any project requiring a federal license or permit that may result in a discharge to a water of the United States must obtain a 401 Certification, which certifies that the project will be in compliance with state water quality standards. The most common federal permits triggering 401 Certification are CWA Section 404 permits issued by the USACE. The 401 permit certifications are obtained from the appropriate RWQCB, dependent on the project location, and are required before the USACE issues a 404 permit.

In some cases, the RWQCB may have specific concerns with discharges associated with a project. As a result, the RWQCB may issue a set of requirements known as Waste Discharge Requirements (WDRs) under the State Water Code (Porter-Cologne Act) that define activities, such as the inclusion of specific features, effluent limitations, monitoring, and plan submittals that are to be implemented for protecting or benefiting water quality. WDRs can be issued to address both permanent and temporary discharges of a project.

## **Affected Environment**

The Los Angeles (LA) River watershed is one of the largest in the Region. Approximately 324 square miles of the watershed are covered by forest or open space land including the area near the headwaters which originate in the Santa Monica, Santa Susana, and San Gabriel Mountains. The rest of the watershed is highly developed. The river flows through the San Fernando Valley past heavily developed residential and commercial areas. From the Arroyo Seco, north of downtown Los Angeles, to the confluence with the Rio Hondo, the river flows through industrial and commercial areas and is bordered by rail yards, freeways, and major commercial and government buildings. From the Rio Hondo to the Pacific Ocean, the river flows through industrial, residential, and commercial areas, including major refineries and petroleum products storage facilities, major freeways, rail lines, and rail yards serving the Ports of Los Angeles and Long Beach.

Ballona Creek is an 8.8-mile-long waterway in southwestern Los Angeles County whose watershed drains the Los Angeles basin, from the Santa Monica Mountains on the north, the Harbor Freeway (I-110) on the east, and the Baldwin Hills on the south. It heads in the historical Rancho Las Cienegas and flows through Culver City and the Del Rey district before emptying into Santa Monica Bay between Marina del Rey and the Playa del Rey district.

According to the Storm Water Data Report (July 2015), the Los Angeles Regional Water Quality Control Board Region 4 (LARWQCB) has jurisdiction within the project limits. The nearest water bodies are the Ballona Creek and the Los Angeles River Reach 2 (Carson to Figueroa St.).

The following are pollutants of concern in both water bodies: coliform bacteria, oil, ammonia, copper, lead, nutrients (algae), trash cadmium (sediment), cyanide, toxicity, viruses (enteric) selenium, copper (dissolved), and zinc. The project limits are within the Ballona Creek Watershed and the hydrologic area is interior Santa Monica Bay, Hydrologic Sub Area is Wilshire.

Disturbed soil areas (DSAs) are areas of exposed, erodible soil that are within the construction limits and that result from construction activities. The DSA from construction of the proposed project is 0.47 acre, and the net gain impervious surface after construction would be 0.07 acre. The total affected area (DSA) is calculated based on total disturbances (paved or unpaved areas), which include:

- Retaining walls and touchdown areas
- Roadway work at paved areas
- Roadway work at unpaved areas
- All columns (bents) excavation areas

## ***Environmental Consequences***

**Alternative 1 (No Build Alternative):** The existing condition would remain; therefore, no impact would occur.

### **Alternative 2 (Build Alternative):**

#### **Potential Construction Impacts**

The greatest water pollution threat from soil-disturbing activities is the introduction of sediment from the construction site into storm drain systems or natural receiving waters. Soil-disturbing activities such as: clearing, grubbing, and earthwork increase the exposure of soils to wind, rain, and concentrated flows that cause erosion. Below are minimization measures WQ-1 through WQ-8 to minimize impacts to water quality.

Since DSA for this project is less than 1 acre, a Storm Water Pollution Plan is not required; therefore this project is expected to utilize a Water Pollution Control Program (WPCP). Also due to the small DSA, and the nature of this project and type of construction sediment control and erosion control Best Management Practices (BMPs) are anticipated to be necessary. Therefore, waste management BMPs will be utilized.

#### **Potential Operational Impacts**

No operational impacts are anticipated as a result of the proposed Build Alternative.



## **Avoidance, Minimization, and/or Mitigation Measures**

**Minimization WQ-1:** Storm drain inlet protection will be deployed throughout the project and the roadway should be swept regularly to minimize dirt and dust.

**Minimization WQ-2:** Concrete wastes will be managed through the use of concrete washout facilities.

**Minimization WQ-3:** Temporary silt fence shall be utilized to protect existing vegetation. Location of the temporary fencing shall be shown on the project plans.

**Minimization WQ-4:** Various waste management, materials handling, and other housekeeping BMPs will be used throughout the duration of the project.

**Minimization WQ-5:** Construction sequencing will be scheduled to minimize storm water quality impacts.

**Minimization WQ-6:** A Water Pollution Control Plan will be prepared, and implemented during the construction stage.

**Minimization WQ-7:** Comply with the provisions of the National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Order No. 2009-0009-DWQ, NPDES No. CAS000002) (i.e. Construction General Permit).

**Minimization WQ-8:** Comply with the provisions identified in the NPDES Statewide Storm Water Permit Waste Discharge Requirements for the State of California, Department of Transportation (Order No. 2012-0011-DWQ, NPDES No. CAS000003).

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## **2.2.1 Geology, Soils, Seismicity and Topography**

### ***Regulatory Setting***

For geologic and topographic features, the key federal law is the Historic Sites Act of 1935, which establishes a national registry of natural landmarks and protects “outstanding examples of major geological features.” Topographic and geologic features are also protected under the California Environmental Quality Act (CEQA).

This section also discusses geology, soils, and seismic concerns as they relate to public safety and project design. Earthquakes are prime considerations in the design and retrofit of structures. The Department’s Office of Earthquake Engineering is responsible for assessing the seismic hazard for Department projects. Structures are designed using the Department’s Seismic Design Criteria (SDC). The SDC provides the minimum seismic requirements for highway bridges designed in California. A bridge’s category and classification will determine its seismic performance level and which methods are used for estimating the seismic demands and structural capabilities.

### ***Affected Environment***

The Geotechnical Memo (April 2010) summarizes the geotechnical elements that may interact with the Harbor Transitway and the construction of the proposed Build Alternative. The following section discusses the geotechnical elements.

#### **Site Geology**

The area within the project limits have been mapped as surficial sediments (Qa) consisting mainly of alluvial gravel, sand and clay deposits with some cobbles (Dibblee, T.W., 1991). Based on some of the boring logs reviewed, the inter-bedded sand and gravel layers generally range from dense to very dense.

#### **Seismicity**

The project is located in a seismically active area. The geologic processes which have caused earthquakes in the past can be expected to continue. Seismic events which are likely to produce the greatest bedrock accelerations could be a moderate event on the Puente Hills Blind Thrust Fault and/or a large event on a distant earthquake fault. An earthquake fault is considered by the State of California to be active if geologic evidence indicates that movement on the fault has occurred in the last 11,000 years, and potentially active if movement is demonstrated to have occurred in the last 2 million years.

#### **Seismic Phenomena (Ground Shaking)**

Ground shaking is the primary cause of structural damage during an earthquake; the magnitude, duration and vibration frequency characteristics will vary greatly, depending upon the particular causative fault and its distance from the project.

Using Caltrans ARS Online (V2.3.06), the Puente Hills Blind Thrust System is the closest to the site with a Maximum Magnitude (Mmax) of 6.9. Deterministic site parameters obtained using the EQFAULT-Version 3.0 (T. Blake, 2004) computer program for the deterministic prediction of peak acceleration from digitized California Fault System indicates that the Maximum Earthquake Magnitude (Mw) expected at the site could be 7.1.

### **Ground Rupture**

An analysis of fault rupture hazard for a particular fault requires that the fault be located exactly, and its potential for rupture to be known, if only approximately. There are no known earthquake faults crossing the project. The closest earthquake fault zone under the auspices of the Alquist-Priolo Earthquake Fault Zoning Act is the Newport-Inglewood Fault Zone and is located 4.5 miles SW of the project.

### **Liquefaction**

Liquefaction occurs when vibrations or water pressure within a mass of soil cause the soil particles to lose contact with one another. As a result, the soil behaves like a liquid, has an inability to support weight and can flow down very gentle slopes. This condition is usually temporary and is most often caused by an earthquake vibrating water-saturated fill or unconsolidated soil.

Liquefaction most often occurs when three conditions are met:

- 1) Loose, granular sediment or fill
- 2) Saturation by groundwater
- 3) Strong shaking

Further, liquefaction exists when fine silts and sands are located below the water table. The water can also be perched ground water. Liquefaction has been documented to affect soils to approximately 15 m. (50 feet) deep, during prolonged periods of ground shaking.

### **Groundwater**

Groundwater was not encountered to a depth of approximately 70 feet below ground surface during the 1954 and 1990 boring explorations for the existing overcrossing structure.

## ***Environmental Consequences***

**Alternative 1 (No-Build Alternative):** The existing condition would remain; therefore, no impact would occur.

**Alternative 2 (Build Alternative):**

### **Potential Construction Impacts**

The following information is based only on preliminary estimates derived from studying similar structures and using engineering judgment. The actual lengths of piles will be determined more precisely during the design stage. Depending on the location of the bents (columns) the depth of the piles differs from about 50 feet to 120 feet in depth. For the depth of the wing walls (touch-down location close to Figueroa St. retaining walls) it will be approximately 8 feet in depth, and for road/sidewalks it will be approximately 2 feet in depth.

It was found that the potential for ground rupture is non-existing to very low at the site. In addition, based on a regional study conducted by the U.S. Geological Survey (1985), the relative liquefaction susceptibility along these project limits is considered to be low to very low. A 1999 Seismic Hazard Map - Hollywood Quadrangle issued by the Department of Conservation California Geological Survey shows that there is not a potential for liquefaction within the project limits. The Geotechnical Unit concurs with these findings.

Groundwater may be impacted by the construction of this project. More information on potential groundwater impacts will be determined during the PS&E phase. Groundwater may be impacted depending on the depth of the bents, but with the incorporation in GT-1 impacts will be minimized. Some construction activities could expose soils to temporary erosion; however, this temporary erosion could be reduced by implementing National Pollutant Discharge Elimination System Permit (NPDES) and BMPs during project construction. There will be no change in the existing rate of erosion as a result of the project. There are no known natural resources that will be affected by the project.

### **Potential Operational Impacts**

No operational impacts are anticipated at this time, but more information will be available at the PS&E Stage of this project.

### ***Avoidance, Minimization, and/or Mitigation Measures***

**Minimization GT-1:** If the Build Alternative is selected, a site-specific geotechnical investigation shall be conducted prior to the detailed design phase. This investigation will determine the depth of the existing groundwater and provide recommendations for avoidance, minimization, and/or mitigation measures, if any, as appropriate.

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## **2.2.2 Paleontology**

### ***Regulatory Setting***

Paleontology is a natural science focused on the study of ancient animal and plant life as it is preserved in the geologic record as fossils. A number of federal statutes specifically address paleontological resources, their treatment, and funding for mitigation as a part of federally authorized projects. 23 United States Code (USC) 1.9(a) requires that the use of federal-aid funds must be in conformity with federal and state law. 23 United States Code (USC) 305 authorizes the appropriation and use of federal highway funds for paleontological salvage as necessary by the highway department of any state, in compliance with 16 USC 431-433 above and state law. Under California law, paleontological resources are protected by the California Environmental Quality Act (CEQA).

### ***Affected Environment***

As mentioned earlier, the lay of the land within the corridor or project corridor is primarily flat and urban. The area is highly urbanized, it is primarily a commercial area, but surrounded by some residential areas. According to the City's General Plan, the area is comprised of commercial, industrial, open space, and residential multiple family land use designations. Various types of building structures surround the project area, gas stations, strip malls, historical buildings, churches, and office buildings, which all make-up the man-made visual resources. Single family residential units are sparse in the immediate area adjacent to the project location. The nearest single family residential area is approximately a quarter mile to the west.

The area within the project limits have been mapped as surficial sediments (Qa) consisting mainly of alluvial gravel, sand and clay deposits with some cobbles (Dibblee, T.W., 1991). Based on some of the boring logs reviewed, the inter-bedded sand and gravel layers generally range from dense to very dense. According to the Paleontological Resources Evaluation Memo (November 2014), no paleontological resources are within the project study area.

## ***Environmental Consequences***

**Alternative 1 (No-Build Alternative):** The existing condition would remain; therefore, no impact would occur.

### **Alternative 2 (Build Alternative):**

#### **Potential Construction Impacts**

No impacts to paleontological resources are anticipated as a result of the proposed Build Alternative, but avoidance measure PALEO-1 will be in place should paleontological resources be discovered during construction.

#### **Potential Operational Impacts**

Operational impacts are not anticipated as a result of the proposed Build Alternative.

#### ***Avoidance, Minimization, and/or Mitigation Measures***

**Avoidance PALEO-1:** If during construction paleontological resources are discovered, a qualified paleontologist will need to recover them. Construction work will be halted or diverted to allow recovery of fossil remains in a timely manner. Fossil remains will be collected, evaluated and deposited in a scientific institution such as the Los Angeles Natural History Museum as a donation.



### **2.2.3 Hazardous Waste and Materials**

#### ***Regulatory Setting***

Hazardous materials, including hazardous substances and wastes, are regulated by many state and federal laws. Statutes govern the generation, treatment, storage and disposal of hazardous materials, substances, and waste, and also the investigation and mitigation of waste releases, air and water quality, human health and land use.

The primary federal laws regulating hazardous wastes/materials are the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA) and the Resource Conservation and Recovery Act of 1976 (RCRA). The purpose of CERCLA, often referred to as “Superfund,” is to identify and clean up abandoned contaminated sites so that public health and welfare are not compromised. The RCRA provides for “cradle to grave” regulation of hazardous waste generated by operating entities. Other federal laws include: Community Environmental Response Facilitation Act (CERFA) of 1992

- Clean Water Act
- Clean Air Act
- Safe Drinking Water Act
- Occupational Safety and Health Act (OSHA)
- Atomic Energy Act
- Toxic Substances Control Act (TSCA)
- Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA)

In addition to the acts listed above, Executive Order (EO) 12088, Federal Compliance with Pollution Control Standards, mandates that necessary actions be taken to prevent and control environmental pollution when federal activities or federal facilities are involved.

California regulates hazardous materials, waste, and substances under the authority of the CA Health and Safety Code and is also authorized by the federal government to implement RCRA in the state. California law also addresses specific handling, storage, transportation, disposal, treatment, reduction, cleanup and emergency planning of hazardous waste. The Porter-Cologne Water Quality Control Act also restricts disposal of wastes and requires clean-up of wastes that are below hazardous waste concentrations but could impact ground and surface water quality. California regulations that address waste management and prevention and clean up contamination include Title 22 Division 4.5 Environmental Health Standards for the Management of Hazardous Waste, Title 23 Waters, and Title 27 Environmental Protection.

Worker and public health and safety are key issues when addressing hazardous materials that may affect human health and the environment. Proper management and disposal of hazardous material is vital if it is found, disturbed, or generated during project construction.

## ***Affected Environment***

The Los Angeles Regional Water Quality Control Board's GEOTRACKER and California Department of Toxic Substances Control (DTSC) ENVIROSTOR environmental database were reviewed to identify potential Recognized Environmental Concerns (RECs) with respect to potential soil and groundwater conditions pertaining to the structure improvement/construction. Based on the environmental databases researched, one reported Leaking Underground Storage Tank (LUST) site, Mobile #18-BV7 (T0603171) located at 2620 Figueroa St. had open site assessment since June of 2000. This facility reported groundwater contamination with gasoline. The Responsible Party (RP) stated their investigation and quarterly monitoring program since January 2003 and subsequently received a Closure/ No Further Action (NFA) letter issued by the Los Angeles Regional Water Quality Control Board (LARWQCB) on 9/16/2006.

## ***Environmental Consequences***

**Alternative 1 (No-Build Alternative):** The existing condition would remain; therefore, no impact would occur.

**Alternative 2 (Build Alternative):**

### **Potential Construction Impacts**

It is likely that deep foundations will be employed for the new off-ramp structure. A Phase II environment site investigation will be performed in the Plans Specifications and Estimates Phase of the project (as stated in minimization measure HW-6) to characterize both soil and groundwater conditions and to establish a base-line condition for wastewater discharging compliance. Further, a project specific Lead Compliance Plan will be developed as stated in HW-2, which will minimize potential impacts.

The proposed improvements consist of roadway and structure excavations at existing unpaved areas. Aerially Deposited Lead (ADL) soil may potentially exist at unpaved areas where it has been undisturbed in the past. Asbestos Containing Material (ACM) may be present in older bridge railing, utility conduits, drainage pipes, and shim plates. Avoidance measure HW-7 and HW-1 will minimize impacts.

According to Caltrans Headquarters (HQ) Lead Testing Guidance (June 2007), removal and installation of Metal Beam Guard Railing (MBGRs/MGRs), roadside signs (with wooden post), minor grading, curb & dike reconstruction, landscape & irrigation works are considered minor soil disturbance work. These tasks, where the soil will not be removed from the area of disturbance and waste will not be generated as defined in Title 26 of the California Code of Regulations (26CCR), the DTSC Aerially Deposited Lead (ADL) Variance will not be invoked. Treated Wood Waste (TWW) can occur as existing wooden posts for MBGRs and roadside signs are removed. These wood products are typically treated with preserving chemicals that protect against insect attack and fungal decay. These chemicals may be hazardous (carcinogenic). Avoidance measure HW-7, minimization measure HW-3, HW-4 will minimize potential impacts. The existing yellow thermoplastic traffic stripe and pavement marking will be disturbed/removed as part of the project

improvements. Yellow thermoplastic traffic stripe and pavement marking contain elevated lead and chromium, which is regulated as California Hazardous Waste. Potential impacts will be minimized with the incorporation of HW-5.

According to Caltrans Right of Way Division and Caltrans Design, approximately 3 feet will be needed from two parcels to ensure sufficient space for maintenance, ingress/egress, access control, and setback purposes as well as emergency services access. The two parcels are businesses in a strip mall near the proposed project. Businesses will not be impacted by the acquisition of approximately a 3 foot sliver from the back of the properties. Therefore, the following parcels will be acquired for the proposed Build Alternative:

- Parcel # 80596-1 (APN #5124-027-015)
- Parcel # 80597-1 (APN #5124-027-017)

No relocations are anticipated as a result of the proposed Build Alternative. With the incorporation of minimization measure HW-6, potential impacts will be minimized.

### **Potential Operational Impacts**

No operational impacts are anticipated as a result of the proposed Build Alternative.

### ***Avoidance, Minimization, and/or Mitigation Measures***

**Minimization HW-1:** An Asbestos Containing Material (ACM) Survey will be performed by a certified Asbestos Consultant (CAC) and Certified Lead Inspector (CLI). This allow the contractor to apply for a National Emission Standards for Hazardous Air Pollutants (NESHAP) notification/permit with South Coast Air Quality Management (SCAQMD) prior to bridge demolition work.

**Minimization HW-2:** The development of a project-specific Lead Compliance Plan (LCP) and training program to ensure proper health and safety measures are implemented and complied prior to start of the removal operation will be required. Per Caltrans Standard Special Provisions (SSPs) a project-specific Lead Compliance Plan will be required prior to the minor soil disturbance, major soil disturbance (requires LCP and Excavation and Transportation Plan (ETP), removal of existing Yellow/White Thermoplastic Traffic Stripe and pavement marking (requires LCP and Debris Removal, Containment, and Disposal Work Plan), and non-aerially deposited lead soil disturbance (requires a Health and Safety Plan (HaSP) and a Hazardous Material/Waste Management Plan (HMP) at the project site.

**Minimization HW-3:** A TWW disposal health and safety plan will be prepared.

**Minimization HW-4:** A Debris Containment and Disposal Work Plan will be prepared.

**Minimization HW-5:** Removal of yellow/white thermoplastic traffic stripes and pavement marking material shall be properly collected, stored, transported, and disposed of in accordance with State and Federal guidelines.

**Minimization HW-6:** If the proposed Build Alternative is selected, then a Phase I Environmental Site Assessment (ESA) and a Phase II Site Investigation (SI) will be prepared. The Phase II Site Investigation will be performed on existing corridor and new parcels to be acquired for the project. The purpose of the ESA is to recognize environmental conditions in connection with the parcels. The Phase II Site Investigation will evaluate and determine the extent/degree of contaminations on the Parcels prior to acquisition. The objective of the Site Investigation is to characterize/evaluate both soil and groundwater condition.

**Avoidance HW-7:** A comprehensive ADL site investigation will be performed in the Plans Specifications and Estimates phase of the project in order to evaluate the extent of ADL contamination and to assist in evaluation of applicable ADL soil management during construction.

## **2.2.4 Air Quality**

### ***Regulatory Setting***

The Federal Clean Air Act (FCAA), as amended, is the primary federal law that governs air quality while the California Clean Air Act is its companion state law. These laws, and related regulations by the United States Environmental Protection Agency (U.S. EPA) and California Air Resources Board (ARB), set standards for the concentration of pollutants in the air. At the federal level, these standards are called National Ambient Air Quality Standards (NAAQS). NAAQS and state ambient air quality standards have been established for six transportation-related criteria pollutants that have been linked to potential health concerns: carbon monoxide (CO), nitrogen dioxide (NO<sub>2</sub>), ozone (O<sub>3</sub>), particulate matter (PM), which is broken down for regulatory purposes into particles of 10 micrometers or smaller (PM<sub>10</sub>) and particles of 2.5 micrometers and smaller (PM<sub>2.5</sub>), and sulfur dioxide (SO<sub>2</sub>). In addition, national and state standards exist for lead (Pb) and state standards exist for visibility reducing particles, sulfates, hydrogen sulfide (H<sub>2</sub>S), and vinyl chloride. The NAAQS and state standards are set at levels that protect public health with a margin of safety, and are subject to periodic review and revision. Both state and federal regulatory schemes also cover toxic air contaminants (air toxics); some criteria pollutants are also air toxics or may include certain air toxics in their general definition.

Federal air quality standards and regulations provide the basic scheme for project-level air quality analysis under the National Environmental Policy Act (NEPA). In addition to this environmental analysis, a parallel “Conformity” requirement under the FCAA also applies.

### **Conformity**

The conformity requirement is based on Federal Clean Air Act Section 176(c), which prohibits the U.S. Department of Transportation (USDOT) and other federal agencies from funding, authorizing, or approving plans, programs or projects that do not conform to State Implementation Plan (SIP) for attaining the NAAQS. “Transportation Conformity” applies to highway and transit projects and takes place on two levels: the regional—or, planning and programming—level and the project level. The proposed project must conform at both levels to be approved.

Conformity requirements apply only in nonattainment and “maintenance” (former nonattainment) areas for the NAAQS, and only for the specific NAAQS that are or were violated. U.S. EPA regulations at 40 Code of Federal Regulations (CFR) 93 govern the conformity process. Conformity requirements do not apply in unclassifiable/attainment areas for NAAQS and do not apply at all for state standards regardless of the status of the area.

Regional conformity is concerned with how well the regional transportation system supports plans for attaining the NAAQS for carbon monoxide (CO), nitrogen dioxide (NO<sub>2</sub>), ozone (O<sub>3</sub>), particulate matter (PM<sub>10</sub> and PM<sub>2.5</sub>), and in some areas (although not in California) sulfur dioxide (SO<sub>2</sub>). California has attainment or maintenance areas for all of these transportation-related “criteria pollutants” except SO<sub>2</sub>, and also has a nonattainment area for lead (Pb); however, lead is not currently required by the FCAA to be covered in transportation conformity analysis. Regional conformity is based on emission analysis of Regional Transportation Plans (RTPs) and Federal Transportation Improvement Programs (FTIPs) that include all transportation projects planned for a region over a period of at least 20 years for the RTP and 4 years (for the TIP). RTP and FTIP

conformity uses travel demand and emission models to determine whether or not the implementation of those projects would conform to emission budgets or other tests at various analysis years showing that requirements of the Clean Air Act and the SIP are met. If the conformity analysis is successful, the Metropolitan Planning Organization (MPO), Federal Highway Administration (FHWA), and Federal Transit Administration (FTA), make determinations that the RTP and FTIP are in conformity with the SIP for achieving the goals of the FCAA. Otherwise, the projects in the RTP and/or FTIP must be modified until conformity is attained. If the design concept, scope, and “open-to-traffic” schedule of a proposed transportation project are the same as described in the RTP and FTIP, then the proposed project meets regional conformity requirements for purposes of project-level analysis.

Conformity analysis at the project-level includes verification that the project is included in the regional conformity analysis and a “hot-spot” analysis if an area is “nonattainment” or “maintenance” for carbon monoxide (CO) and/or particulate matter (PM<sub>10</sub> or PM<sub>2.5</sub>). A region is “nonattainment” if one or more of the monitoring stations in the region measures a violation of the relevant standard and the U.S. EPA officially designates the area nonattainment.

Areas that were previously designated as nonattainment areas but subsequently meet the standard may be officially re-designated to attainment by U.S. EPA and are then called “maintenance” areas. “Hot-spot” analysis is essentially the same, for technical purposes, as CO or particulate matter analysis performed for NEPA purposes. Conformity does include some specific procedural and documentation standards for projects that require a hot-spot analysis. In general, projects must not cause the “hot-spot” related standard to be violated, and must not cause any increase in the number and severity of violations in nonattainment areas. If a known CO or particulate matter violation is located in the project vicinity, the project must include measures to reduce or eliminate the existing violation(s) as well.

## **Affected Environment**

According to the Air Quality Analysis (September 2015), the average wind speed for Los Angeles is the lowest of the nation's ten largest urban areas. In addition, the summertime daily maximum mixing heights (an index of how well pollutants can be dispersed vertically in the atmosphere) in Southern California is the lowest, on average, in the U.S., due to strong temperature inversions in the lower atmosphere that effectively trap pollutants near the surface. The Southern California area is also an area with abundant sunshine, which drives the photochemical reactions which form pollutants such as ozone and a significant portion of fine Particulate Matter (PM<sub>2.5</sub>).

In the Basin, high concentrations of ozone are normally recorded during the late spring and summer months, when more intense sunlight drives enhanced photochemical reactions. In contrast, higher concentrations of carbon monoxide are generally recorded in late fall and winter, when nighttime radiation inversions trap the emissions at the surface. High Inhalable Particulate Matter (PM<sub>10</sub>) and (PM<sub>2.5</sub>) concentrations can occur throughout the year, but occur most frequently in fall and winter in the Basin.

Although there are changes in emissions by season, the observed variations in pollutant concentrations are largely a result of seasonal differences in weather conditions. The climatological station closest to the site that monitors temperature is the Los Angeles Civic Center monitoring station, which maintained by the Western Regional Climate Center. The annual average maximum temperature recorded from 4/1/1906 to 3/31/2013 at this station is 23.3 C (74F), and the annual average minimum is 13.2C (55.8F). December and January are typically the coldest months in this area of the Basin. Almost all rainfall in Los Angeles County falls during the winter/early spring (November through April). Summer rainfall is normally restricted to scattered thundershowers in lower elevations, and somewhat heavier activity in the mountains. The Los Angeles Civic Center monitoring station also monitors rainfall levels. Average monthly rainfall measured at this station varied from 0.025 centimeters (cm) (0.01 inches) in July to 1.22 cm (0.48 inches) in October, 3.17 cm (1.25 inches) in November, and 8.58 cm (3.38 inches) in February with an average annual total of 35.51 cm (14.77 inches).

Ambient monitoring data were obtained from the Los Angeles North Main St. Monitoring Station, which is located on 1630 North Main St., Los Angeles and is the closest to the proposed project at latitude of 34.066389 and longitude of -118.22667. The monitoring station is approximately 0.5 miles east of I-110 and about 4.0 miles south of the project site. Figure 39 illustrates the proximity of this monitoring station to the freeway and to the proposed project.

**Figure 39: Location of the Representative Monitoring Station and Project Location**



Source: Air Quality Analysis (September 2015)

The 2012 Annual Average Daily Traffic (AADT) at I-110/US-101 intersection near the Los Angeles North Main Street monitoring station is 182,000 with 2.67 percent trucks. The AADT at I-110/I-10 intersection near the proposed project is located was measured with AADT of 100,000 with 1.13 percent trucks in 2012.

Based on the comparison of the traffic volumes, truck percentage, land uses, and the proximity to the freeway, the ambient concentration data measured at the Los Angeles North monitoring station is deemed representative for comparison to the proposed project. The prevailing daytime sea breeze tends to transport pollutants and precursor emissions from coastal areas into the Basin's inland valleys, and from there, still further inland into neighboring areas of the Salton Sea Air Basin (SSAB) as well as the Mojave Desert Air Basin (MDAB).

A summary of the most recent three years of ambient air monitoring data at Los Angeles North Monitoring Station for criteria pollutants is provided in Table 23.



# I-110 Flyover Project

**Table 23: Three Year Ambient Air Monitoring**

Pollutant/Standard		2011	2012	2013
Ozone (O <sub>3</sub> )	O <sub>3</sub> (1-hour)			
	Maximum Concentration (ppm)	0.087	0.093	0.081
	Days> CAAQS (0.09 ppm)	0	0	0
	O <sub>3</sub> (8-hour)			
	Maximum Concentration (ppm)	0.065	0.077	0.069
	Days> CAAQS (0.070 ppm)	0	2	0
	Days> NAAQS (0.075 ppm)	0	1	0
Particulate Matter (PM <sub>10</sub> )	PM <sub>10</sub> (24-hour)			
	Maximum Concentration (ug/m3)	53.0	80.0	57.0
	Days> CAAQS (50 ug/m3)	6.5	24.2	21.4
	Days> NAAQS (150 ug/m3)	0	0	0
	PM <sub>10</sub> (Annual Average)			
	National Annual Average	29.0	30.2	29.5
Particulate Matter (PM <sub>2.5</sub> )	PM <sub>2.5</sub> (24-hour)			
	Maximum Concentration (ug/m3)	49.3	58.7	43.1
	Days> NAAQS (35 ug/m3)	4.5	4.2	1.1
	PM <sub>2.5</sub> (Annual Average)			
	National Annual Average	12.9	12.5	12.0
Carbon Monoxide	CO (1-hour)			
(CO)	Maximum Concentration (ppm)	2.8	2.2	2.5
	Days> CAAQS (20 ppm)	0	0	0
	Days> NAAQS (35 ppm)	0	0	0
	CO (8-hour)			
	Maximum Concentration (ppm)	2.40	1.91	2.0
	Days> CAAQS (9 ppm)	0	0	0
	Days> NAAQS (9 ppm)	0	0	0
Nitrogen Dioxide (NO <sub>2</sub> )	NO <sub>2</sub> (1-hour -- State Standard)			
	Maximum Concentration (ppm)	0.109	0.077	0.090
	Days > CAAQS (0.18 ppm)	0	0	0
	NO <sub>2</sub> (1-hour -- National Standard)			
	Maximum Concentration (ppb)	109.6	77.3	90.3
Sulfur Dioxide (SO <sub>2</sub> )	Days > NAAQS (100 ppb)	1	0	0
	SO <sub>2</sub> (1-hour)			
	Maximum Concentration (ppm)	0.012	0.005	0.006
	Days> CAAQS (0.25 ppm)	0	0	0
	SO <sub>2</sub> (24-hour)			
	Maximum Concentration (ppm)	0.002	0.002	0.002
	Days> CAAQS (0.04 ppm)	0	0	0
	Days > NAAQS (0.14 ppm)	N/A	N/A	N/A
	SO <sub>2</sub> (Annual Average)			
	Annual Average	*	*	*
	Days > NAAQS (0.03 ppm)	N/A	N/A	N/A

Note: \* means there was insufficient data available to determine the value.

Source: Air Quality Analysis (September 2015)

## **Federal and State Attainment Status**

Below are the criteria pollutants, and Table 24 discusses State and Federal attainment statuses of each one. Table 25 focuses on the ambient air quality standards. Health effects summary from criteria pollutants are discussed in Table 26.

### **Ozone (O<sub>3</sub>)**

Ozone is a toxic gas that irritates the lungs and damages materials and vegetation. Ozone is a secondary pollutant; it is not directly emitted. Ozone is a principal cause of lung and eye irritation in an urban environment. It is formed in the atmosphere through a series of reactions involving hydrocarbons (HC) and nitrogen oxides in the presence of sunlight.

### **Particulate Matter (PM<sub>10</sub> and PM<sub>2.5</sub>)**

PM includes both aerosols and solid particles of a wide range of size and composition. Of particular concern are those particles between 10 and 2.5 microns in size (PM<sub>10</sub>) and smaller than or equal to 2.5 microns (PM<sub>2.5</sub>). The size of the PM is referenced to the aerodynamic diameter of the particulate. The PM<sub>10</sub> criteria are aimed primarily at what the EPA refers to as “coarse particles.” Coarse particles are often found near roadways, dusty industries, construction sites, and fires. The PM<sub>2.5</sub> criteria are referred to as “fine particles.” These particles can also be directly emitted and they can also be formed when gases emitted from power plants, industries and automobiles react in the air. The principal health effect of airborne PM is on the respiratory system. Studies have linked particulate pollution with irritation of the airways, coughing, aggravated asthma, irregular heartbeat, and premature death in people with heart or lung disease.

### **Carbon Monoxide (CO)**

CO is a colorless and odorless gas, which, in the urban environment, is associated primarily with the incomplete combustion of fossil fuels in motor vehicles. CO combines with hemoglobin in the bloodstream and reduces the amount of oxygen that can be circulated through the body. High CO concentrations can lead to headaches, aggravation of cardiovascular disease, and impairment of central nervous system functions. CO concentrations can vary greatly over comparatively short distances. Relatively high concentrations are typically found near crowded intersections, along heavily used roadways carrying slow moving traffic, and at or near ground level. Even under the most severe meteorological and traffic conditions, high concentrations of CO are limited to locations within a relatively short distance (300 to 600 feet) of heavily traveled roadways. Overall CO emissions are decreasing as a result of the Federal Motor Vehicle Control Program, which has mandated increasingly lower emission levels for vehicles manufactured since 1973.

### **Nitrogen Oxides (NO<sub>x</sub>)**

Nitrogen oxides from automotive sources are some of the precursors in the formation of ozone and secondary PM. Ozone and PM are formed through a series of photochemical reactions in the atmosphere. Because the reactions are slow and occur as the pollutants are diffusing downwind, elevated ozone levels are often found many miles from the source of precursor emission. The effects of nitrogen oxides emission are examined on a regional basis.

**Lead (Pb)**

Nitrogen oxides from automotive sources are some of the precursors in the formation of ozone and secondary PM. Ozone and PM are formed through a series of photochemical reactions in the atmosphere. Because the reactions are slow and occur as the pollutants are diffusing downwind, elevated ozone levels are often found many miles from the source of precursor emission. The effects of nitrogen oxides emission are examined on a regional basis.

**Sulfur Oxides (SO<sub>x</sub>)**

Sulfur oxides constitute a class of compounds of which sulfur dioxide (SO<sub>2</sub>) and sulfur trioxide (SO<sub>3</sub>) are of greatest importance. The oxides are formed during combustion of the sulfur components in motor fuels. Relatively few sulfur oxides are emitted from motor vehicles since motor fuels are now de-sulfured. The health effects of sulfur oxides include respiratory illness, damage to the respiratory tract, and bronchia-constriction.

**Table 24: Federal (NAAQS) and State (CAAQS) Attainment Status**

South Coast Air Basin (SCAB), NAAQS and CAAQS Attainment Status					
Criteria Pollutant	NAAQS			CAAQS	
	Averaging Time	Designation (Classification)	Attainment Date	Averaging Time	Designation
2008 8-Hour Ozone	8-Hour (0.075 ppm)	Nonattainment (Extreme)	12/31/2032	0.070 ppm (137 ug/m <sup>3</sup> )	Nonattainment
CO	1-Hour (35 ppm) 8-Hour (9 ppm)	Attainment (Maintenance)	6/11/2007 (attained)	1-Hour (20 ppm) 8-Hour (9 ppm)	Attainment
PM <sub>10</sub>	24-Hour (150 ug/m <sup>3</sup> )	Attainment (Maintenance)	N/A	24-Hour (50 ug/m <sup>3</sup> )	Nonattainment
			N/A	Annual (20 ug/m <sup>3</sup> )	Nonattainment
PM <sub>2.5</sub>	24-Hour (35 ug/m <sup>3</sup> )	Nonattainment	12/14/2014	No separate State standard	Nonattainment
	Annual (15.0 ug/m <sup>3</sup> )	Nonattainment	4/15/2015	Annual (12.0 ug/m <sup>3</sup> )	Nonattainment
NO <sub>2</sub>	1-Hour (100 ppb)	Attainment/ Unclassified	N/A	0.18 ppm (339 ug/m <sup>3</sup> )	Nonattainment
	Annual (0.053 ppm)	Attainment (Maintenance)	9/22/1998	0.030 ppm (57 ug/m <sup>3</sup> )	Nonattainment
SO <sub>2</sub>	1-Hour (75 ppb)	Designations Pending	N/A	0.25 ppm	Attainment
	24-Hour (0.14 ppm) Annual (0.03 ppm)	Attainment/ Unclassified	N/A	0.04 ppm (105 ug/m <sup>3</sup> )	Attainment
Lead (Pb)	3-Months Rolling (0.15 ug/m <sup>3</sup> )	Nonattainment (Partial-LA portion)	12/31/2015	30 day concentration (1.5 ug/m <sup>3</sup> )	Nonattainment

Source: Air Quality Analysis (September 2015)

## Air Pollution Standards

Table 25: Ambient Air Quality Standards

Ambient Air Quality Standards						
Pollutant	Averaging Time	California Standards <sup>1</sup>		National Standards <sup>2</sup>		
		Concentration <sup>3</sup>	Method <sup>4</sup>	Primary <sup>3,6</sup>	Secondary <sup>3,6</sup>	Method <sup>7</sup>
Ozone (O <sub>3</sub> )	1 Hour	0.09 ppm (180 µg/m <sup>3</sup> )	Ultraviolet Photometry	—	Same as Primary Standard	Ultraviolet Photometry
	8 Hour	0.070 ppm (137 µg/m <sup>3</sup> )		0.075 ppm (147 µg/m <sup>3</sup> )		
Respirable Particulate Matter (PM <sub>10</sub> ) <sup>8</sup>	24 Hour	50 µg/m <sup>3</sup>	Gravimetric or Beta Attenuation	150 µg/m <sup>3</sup>	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	20 µg/m <sup>3</sup>		—		
Fine Particulate Matter (PM <sub>2.5</sub> ) <sup>8</sup>	24 Hour	—	—	35 µg/m <sup>3</sup>	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	12 µg/m <sup>3</sup>	Gravimetric or Beta Attenuation	12.0 µg/m <sup>3</sup>	15 µg/m <sup>3</sup>	
Carbon Monoxide (CO)	1 Hour	20 ppm (23 mg/m <sup>3</sup> )	Non-Dispersive Infrared Photometry (NDIR)	35 ppm (40 mg/m <sup>3</sup> )	—	Non-Dispersive Infrared Photometry (NDIR)
	8 Hour	9.0 ppm (10 mg/m <sup>3</sup> )		9 ppm (10 mg/m <sup>3</sup> )	—	
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m <sup>3</sup> )		—	—	
Nitrogen Dioxide (NO <sub>2</sub> ) <sup>9</sup>	1 Hour	0.18 ppm (339 µg/m <sup>3</sup> )	Gas Phase Chemiluminescence	100 ppb (188 µg/m <sup>3</sup> )	—	Gas Phase Chemiluminescence
	Annual Arithmetic Mean	0.030 ppm (57 µg/m <sup>3</sup> )		0.053 ppm (100 µg/m <sup>3</sup> )	Same as Primary Standard	
Sulfur Dioxide (SO <sub>2</sub> ) <sup>10</sup>	1 Hour	0.25 ppm (655 µg/m <sup>3</sup> )	Ultraviolet Fluorescence	75 ppb (196 µg/m <sup>3</sup> )	—	Ultraviolet Fluorescence; Spectrophotometry (Pararosaniline Method)
	3 Hour	—		—	0.5 ppm (1300 µg/m <sup>3</sup> )	
	24 Hour	0.04 ppm (105 µg/m <sup>3</sup> )		0.14 ppm (for certain areas) <sup>10</sup>	—	
	Annual Arithmetic Mean	—		0.030 ppm (for certain areas) <sup>10</sup>	—	
Lead <sup>11,12</sup>	30 Day Average	1.5 µg/m <sup>3</sup>	Atomic Absorption	—	—	High Volume Sampler and Atomic Absorption
	Calendar Quarter	—		1.5 µg/m <sup>3</sup> (for certain areas) <sup>12</sup>	Same as Primary Standard	
	Rolling 3-Month Average	—		0.15 µg/m <sup>3</sup>		
Visibility Reducing Particles <sup>13</sup>	8 Hour	See footnote 13	Beta Attenuation and Transmittance through Filter Tape	No National Standards		
Sulfates	24 Hour	25 µg/m <sup>3</sup>	Ion Chromatography			
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m <sup>3</sup> )	Ultraviolet Fluorescence			
Vinyl Chloride <sup>11</sup>	24 Hour	0.01 ppm (26 µg/m <sup>3</sup> )	Gas Chromatography			

**See footnotes on next page ...**

## *I-110 Flyover Project*

1. California standards for ozone, carbon monoxide (except 8-hour Lake Tahoe), sulfur dioxide (1 and 24 hour), nitrogen dioxide, and particulate matter (PM10, PM2.5, and visibility reducing particles), are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.
2. National standards (other than ozone, particulate matter, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over three years, is equal to or less than the standard. For PM10, the 24 hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above  $150 \mu\text{g}/\text{m}^3$  is equal to or less than one. For PM2.5, the 24 hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact the U.S. EPA for further clarification and current national policies.
3. Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of  $25^\circ\text{C}$  and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of  $25^\circ\text{C}$  and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.
4. Any equivalent measurement method which can be shown to the satisfaction of the ARB to give equivalent results at or near the level of the air quality standard may be used.
5. National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.
6. National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.
7. Reference method as described by the U.S. EPA. An "equivalent method" of measurement may be used but must have a "consistent relationship to the reference method" and must be approved by the U.S. EPA.
8. On December 14, 2012, the national annual PM2.5 primary standard was lowered from  $15 \mu\text{g}/\text{m}^3$  to  $12.0 \mu\text{g}/\text{m}^3$ . The existing national 24-hour PM2.5 standards (primary and secondary) were retained at  $35 \mu\text{g}/\text{m}^3$ , as was the annual secondary standard of  $15 \mu\text{g}/\text{m}^3$ . The existing 24-hour PM10 standards (primary and secondary) of  $150 \mu\text{g}/\text{m}^3$  also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.
9. To attain the 1-hour national standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 ppb. Note that the national 1-hour standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the national 1-hour standard to the California standards the units can be converted from ppb to ppm. In this case, the national standard of 100 ppb is identical to 0.100 ppm.
10. On June 2, 2010, a new 1-hour  $\text{SO}_2$  standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971  $\text{SO}_2$  national standards (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated nonattainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.  
  
Note that the 1-hour national standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the 1-hour national standard to the California standard the units can be converted to ppm. In this case, the national standard of 75 ppb is identical to 0.075 ppm.
11. The ARB has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.
12. The national standard for lead was revised on October 15, 2008 to a rolling 3-month average. The 1978 lead standard ( $1.5 \mu\text{g}/\text{m}^3$  as a quarterly average) remains in effect until one year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.
13. In 1989, the ARB converted both the general statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are "extinction of 0.23 per kilometer" and "extinction of 0.07 per kilometer" for the statewide and Lake Tahoe Air Basin standards, respectively.

For more information please call ARB-PIO at (916) 322-2990

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Source: Air Quality Analysis (September 2015)

**Table 26: Health Effect Summary from Criteria Pollutants**

Pollutant	Sources	Primary Effects
Ozone (O <sub>3</sub> )	Atmospheric reaction of organic gases with nitrogen oxides in the presence of sunlight.	Aggravation of respiratory diseases; irritation of eyes; impairment of pulmonary function; plant leaf injury.
Nitrogen Dioxide (NO <sub>2</sub> )	Motor vehicle exhaust; high temperature; stationary combustion; atmospheric reactions.	Aggravation of respiratory illness; reduced visibility; reduced plant growth; formation of acid rain.
Carbon Monoxide (CO)	Incomplete combustion of fuels and other carbon-containing substances, such as motor vehicle exhaust; and natural events, such as decomposition of organic matter.	Reduced tolerance for exercise; impairment of mental function; impairment of fetal development; impairment of learning ability; death at high levels of exposure; aggravation of some cardiovascular diseases (angina).
Particulate Matter (PM <sub>10</sub> and PM <sub>2.5</sub> )	Fuel combustion in motor vehicles, equipment, and industrial sources; construction activities; industrial processes; residential and agricultural burning; atmospheric chemical reactions.	Reduced lung function; aggravation of the effects of gaseous pollutants; aggravation of respiratory and cardio-respiratory diseases; increased cough and chest discomfort; siling; reduced visibility.
Sulfur Dioxide (SO <sub>2</sub> )	Combustion of sulfur-containing fossil fuels; smelting of sulfur-bearing metal ores; industrial processes.	Aggravation of respiratory and cardiovascular diseases; reduced lung function; carcinogenesis; irritation of eyes; reduced visibility; plant injury; deterioration of materials (e.g., textiles, leather, finishes, coating).
Lead (Pb)	Contaminated soil.	Impairment of blood function and nerve construction; behavioral and hearing problems in children.

Source: Air Quality Analysis (September 2015)

### **Construction Emissions**

According to 40 CFR93.123 (c)(5), hot-spot analyses are not required to consider construction related activities that cause temporary increases in emissions. Temporary increases in emissions are defined as those that occur only during the construction phase and that last five years or less at any individual site. The proposed project has construction durations of approximately 2.5 years. Emissions from the construction activities therefore are considered temporary pursuant to 40 CFR93.123(c)(5) and a qualitative analysis is provided accordingly.

### **Operational Emissions**

Vehicular emissions constitute the primary source of air pollutants associated with operation of the proposed project. The direct emissions associated with vehicle traffic were estimated based on the daily traffic volumes and Vehicle Miles Traveled (VMTs) along the project corridor. Evaluation of the local impacts includes the following analyses.

### **Regional Conformity Requirements**

The currently approved plans are the 2012 RTP and the 2013 Federal Transportation Improvement Program (FTIP). The 2012 RTP was adopted by SCAG on April 4, 2012; FHWA and FTA approved the 2012 RTP on June 4, 2012. The 2013 FTIP was federally approved on December 14, 2012. The most recent Amendment to the 2013 FTIP is No. 13-19, approved by FHWA and FTA on July 17, 2014.

A request for an amendment has been submitted to include the proposed project in the regional emissions analysis for the next conforming RTP. When the proposed project is successfully amended into the conforming RTP, the project will be considered to have satisfied regional conformity requirements. A copy of pages from RTP and TIP identifying the proposed project will be attached in the appendix when the amendment process successfully completes.

### **Project Level Conformity Requirements**

#### **Carbon Monoxide Analysis**

The local analysis is commonly referred to as a project-level hot-spot analysis. Conformity must be demonstrated at the project-level for projects in CO, PM<sub>10</sub>, and PM<sub>2.5</sub> nonattainment and maintenance areas. A region is a nonattainment area if one or more monitoring stations in the region fail to attain the relevant CAAQS or NAAQS. In general, projects must not cause the standards to be violated, and in nonattainment areas, the project must not cause any increase in the number and severity of violations. The CO Protocol has a screening exercise that would determine whether the project requires a qualitative or quantitative analysis, or whether none would be necessary which is discussed in detail in the Air Quality Analysis Report (September 2015).



### **Particulate Matter Hot-Spot Analysis**

Procedures and methodology provided in the “Transportation Conformity Guidance for Quantitative Hot-Spot Analyses in PM<sub>2.5</sub> and PM<sub>10</sub> Nonattainment and Maintenance Areas” released by EPA in November 2013 (EPA Quantitative Guidance) was followed. The project proposes to alleviate congestion and reduce queuing and delay in the northbound I-110 HOT lanes mainline and off-ramp; and is located in Los Angeles County, which is attainment maintenance area for PM<sub>10</sub> and nonattainment for PM<sub>2.5</sub>.

### **Mobile Source Air Toxics Emissions (MSAT)**

As discussed in the FHWA Interim Guidance, the magnitude and the duration of the potential increases cannot be reliably quantified. Furthermore, according to the Interim Guidance, even if Vehicle Miles Traveled (VMT) increases by 102 percent as assumed from 2010 to 2050 on a national scale, a combined reduction of 83 percent in the total annual emissions for the priority MSAT is projected due to the advancement of emission control technology and modern fuels. Research into health impacts of MSATs is ongoing. Although studies have reported that proximity to the roadways is related to adverse health impacts, the FHWA Interim Guidance notes that the FHWA continues to monitor the developing research in this field. In the meantime, the current scientific techniques, tools, and data are not sufficient to accurately estimate human health impacts that could result from a transportation project in a way that would be useful to decision-makers.

### **Naturally Occurring Asbestos (NOA)**

Asbestos is a term used for several types of naturally occurring fibrous minerals that are a human health hazard when airborne. The most common type of asbestos is chrysotile, but other types such as tremolite and actinolite are also found in California. Asbestos is classified as a known human carcinogen by state, federal, and international agencies and was identified as a toxic air disease. Asbestos can be released from serpentinite and ultramafic rocks when the rock is broken or crushed. At the point of release, the asbestos fibers may become airborne, causing air quality and human health hazards.

These rocks have been commonly used for unpaved gravel roads, landscaping, fill projects and other improvement projects in some localities. Asbestos may be released to the atmosphere due to vehicular traffic on unpaved roads, during grading for development projects, and at quarry operations. All of these activities may have the effect of releasing potentially harmful asbestos into the air. The California Department of Conservation, Division of Mines and Geology have developed a map of the state showing the general location of ultramafic rock in the state. Los Angeles County is one of the Counties identified as one of the Counties containing serpentinite and ultramafic rock. However, only the Catalina Island portion of Los Angeles County has been found to contain such rock.

### **Fugitive Dust**

Sources of fugitive dust would include disturbed soils at the construction site and trucks carrying uncovered loads of soils. Unless properly controlled, vehicles leaving the site could deposit mud on local streets, which could be an additional source of airborne dust after it dries. PM<sub>10</sub> emissions would vary from day to day, depending on the nature and magnitude of construction activity and local weather conditions. PM<sub>10</sub> emissions would depend on soil moisture, silt content of soil, wind speed, and the amount of equipment operating. Larger dust particles would settle near the source, while fine particles would be dispersed over greater distances from the construction site.

## ***Environmental Consequences***

**Alternative 1 (No-Build Alternative):** The existing condition would remain; therefore, no construction impacts would occur. Operationally, without the proposed Build Alternative air quality will likely worsen due to the lack of traffic circulation and the increased idling time. Please refer to the Traffic and Transportation section (section 2.1.8) in this document to see delays expected without the implementation of the proposed project.

### **Alternative 2 (Build Alternative):**

#### **Potential Construction Impacts**

The proposed project has construction durations of approximately 2.5 years. Emissions from the construction activities therefore are considered temporary pursuant to 40 CFR93.123(c) (5). During construction, short-term degradation of air quality may occur due to the release of particulate emissions (airborne dust) generated by excavation, grading, hauling, and other activities related to construction. The proposed project is located within the SCAB and is required to comply with the respective SCAQMD Fugitive Dust Rule to minimize emissions of fugitive dust during construction activities. Emissions from construction equipment also are anticipated and would include CO, NO<sub>x</sub>, VOCs, directly-emitted particulate matter (PM<sub>10</sub> and PM<sub>2.5</sub>), and toxic air contaminants such as diesel exhaust particulate matter. Ozone is a regional pollutant that is derived from NO<sub>x</sub> and VOCs in the presence of sunlight and heat. Construction activities associated with the Build Alternative of the proposed project would be temporary and would not require more than five years to complete; therefore, construction emissions are not considered for conformity purposes.

An estimate of approximate construction emissions is provided using the latest Sacramento Metropolitan Air Quality Management District's Road Construction Model ([http://airquality.org/ceqa/RoadConstructionEmissionsModelVer7\\_1\\_5\\_1.xls](http://airquality.org/ceqa/RoadConstructionEmissionsModelVer7_1_5_1.xls)). While the model was developed for Sacramento conditions in terms of fleet emission factors, silt loading, and other modeling assumptions, it is considered adequate for estimating road construction emissions by the San Joaquin Valley Air Pollution Control District under its Indirect Source regulations and the SCAQMD in its CEQA guidance; and is used for that purpose in this project analysis. See Appendix in the Air Quality Analysis Report (September 2015) for construction emissions calculations, based on the engineer's estimate of construction activities.

In addition to fugitive dust emissions, heavy-duty trucks and construction equipment powered by gasoline and diesel engines would generate CO, SO<sub>2</sub>, NO<sub>x</sub>, VOCs and some soot particulate (PM<sub>10</sub> and PM<sub>2.5</sub>) in exhaust emissions. If construction activities were to increase traffic congestion in the area, CO and other emissions from traffic would increase slightly while those vehicles are delayed. These emissions would be temporary and limited to the immediate area surrounding the construction site. In order to minimize the temporary exhaust emissions from the heavy-duty trucks and construction equipment adjacent to certain sensitive receptors, certain construction activities, e.g., extended idling, material storage, and equipment maintenance, would need to be conducted in areas at least 500 feet away from those sensitive receptors.

SO<sub>2</sub> is generated by oxidation during combustion of organic sulfur compounds contained in diesel fuel. Off-road diesel fuel meeting Federal standards can contain 300 parts per million (ppm) or more of sulfur, whereas on-road diesel is restricted to less than 15 ppm of sulfur. However, under California law and ARB regulations, off-road diesel fuel used in California must meet the same sulfur and other standards as on-road diesel fuel (not more than 15 ppm), thus SO<sub>2</sub>-related issues due to diesel exhaust will be minimal. Some phases of construction, particularly asphalt paving, would result in short-term odors in the immediate area of each paving site(s). Such odors would be quickly dispersed below detectable thresholds as distance from the site(s) increases.

## **Potential Operational Impacts**

Operationally, air quality improvements are anticipated as a result of the proposed Build Alternative because traffic circulation will improve and reduce the delay time, which in turn reduces the amount of time automobiles will idle. Please refer to the Traffic and Transportation section (section 2.1.8) in this document to see improvements in average delay time with the implementation of the proposed Build Alternative.

## **Regional Conformity**

A comprehensive analysis of project-level CO, PM<sub>10</sub>, and PM<sub>2.5</sub> has concluded that the proposed project has demonstrated conformity at the project-level with the purpose of the State Implementation Plan in regards to attaining the ambient air quality standards. It should be noted that a request for an amendment has been submitted to include the proposed project in the regional emissions analysis for the next conforming RTP and FTIP. When the proposed project is successfully amended into the conforming RTP and FTIP, the project will be considered to have satisfied regional conformity requirements. A copy of the pages from the RTP and TIP that list the proposed project will be attached in the Air Quality Analysis Report appendix when the amendment process successfully completes.

## **Project Level Conformity**

### **Carbon Monoxide Analysis**

The carbon monoxide (CO) hot spot analysis demonstrates that project meets the requirements of 40 CFR 93.116 and 123; project will not cause or contribute to a new violation of the CO standards.

### **Particulate Matter Analysis**

The SCAG's Transportation Conformity Working Group (TCWG) has concurred on August 26, 2014, and reaffirmed on April 38, 2015, that the project is not of air quality concern for PM<sub>10</sub> and PM<sub>2.5</sub>. The Environmental Protection Agency (EPA) has determined that projects not of air quality concern meet the provisions of the CAA Section 176(c)(B) without an explicit hot-spot analysis.

## **MSAT Analysis**

The MSAT analysis acknowledges that the project would result in increase in MSAT emissions for the Build Alternative when compared to the No Build. However, it should be noted that most MSAT emissions for the Build Alternative are anticipated to decrease when compared to the base year condition. Future emissions of other pollutants other than MSATs, GHG, and PMs are also estimated in a manner similar to the estimates of MSATs. Emission of ROG, TOG, CO, and NO<sub>x</sub> are compared to those for the No Build and the base year conditions. Based on the comparison, these pollutants also exhibit a trend similar to most of the MSATs and result in decrease from the base year conditions.

## ***Avoidance, Minimization, and/or Mitigation Measures***

**Minimization AQ-1:** Compliance with Caltrans' Standard Specifications in Section 14 (2010) will be required.

**Minimization AQ-2:** Section 14-9.01 specifically requires compliance with all applicable laws and regulations related to air quality, including SCAQMD rules and regulations and local ordinances.

**Minimization AQ-3:** Section 14-9.02 is directed at controlling dust. If dust palliative materials other than water are to be used, material specifications are contained in Section 18.

**Minimization AQ-4:** Apply water or dust palliative to the site and equipment as frequently as necessary to control fugitive dust emissions. Fugitive emissions generally must meet a "no visible dust" criterion either at the point of emission or at the right of way line as required by the SCAQMD.

**Minimization AQ-5:** Spread soil binder on any unpaved roads used for construction purposes, and all project construction parking areas.

**Minimization AQ-6:** Wash off trucks as they leave the R/W as necessary to control fugitive dust emissions.

**Minimization AQ-7:** Properly tune and maintain construction equipment and vehicles. Use low-sulfur fuel in all construction equipment as provided in California Code of Regulations Title 17, Section 93114.

**Minimization AQ-8:** Develop a dust control plan documenting sprinkling, temporary paving, speed limits, and expedited re-vegetation of disturbed slopes as needed to minimize construction impacts to existing communities.

**Minimization AQ-9:** Locate equipment and materials storage sites at least 500 feet from the sensitive receptors. Keep construction areas clean and orderly.

**Minimization AQ-10:** Establish environmentally sensitive areas (ESAs) or their equivalent at least 500 feet away from sensitive air receptors within which construction activities such as extended idling, material storage, and equipment maintenance, would be prohibited, to the extent feasible.

**Minimization AQ-11:** Use track-out reduction measures such as gravel pads at project access points to minimize dust and mud deposits on roads affected by construction traffic.

**Minimization AQ-12:** Cover all transported loads of soils and wet materials prior to transport, or provide adequate freeboard (space from the top of the material to the top of the truck) to minimize emission of dust (particulate matter) during transportation.

**Minimization AQ-13:** Promptly and regularly remove dust and mud that are deposited on paved, public roads due to construction activity and traffic to decrease particulate matter.

**Avoidance AQ-14:** Route and schedule construction traffic to avoid peak travel times as much as possible, to reduce congestion and related air quality impacts caused by idling vehicles along local roads.

**Minimization AQ-15:** Install mulch or plant vegetation as soon as practical after grading to reduce windblown particulates in the area. Be aware that certain methods of mulch placement, such as straw blowing, may themselves cause dust and visible emission issues, and may need to use controls such as dampened straw.

**Avoidance AQ-16:** While unlikely, if naturally occurring asbestos, serpentine, or ultramafic rock is discovered during grading operations Section 93105, Title 17 of the California Code of Regulations requires notification to the SCAQMD by the next business day and implementation of the following measures within 24 hours:

- Unpaved areas subject to vehicle traffic must be stabilized by being kept adequately wetted, treated with a chemical dust suppressant, or covered with material that contains less than 0.25 percent asbestos
- The speed of any vehicles and equipment traveling across unpaved areas must be no more than fifteen (15) miles per hour unless the road surface and surrounding area is sufficiently stabilized to prevent vehicles and equipment traveling more than 15 miles per hour from emitting dust that is visible crossing the project boundaries
- Storage piles and disturbed areas not subject to vehicular traffic must be stabilized by being kept adequately wetted, treated with a chemical dust suppressant, or covered with material that contains less than 0.25 percent asbestos
- Activities must be conducted so that no track-out from any road construction project is visible on any paved roadway open to the public

## **Climate Change**

Climate change is analyzed at the end of this chapter. Neither the United States Environmental Protection Agency (U.S. EPA) nor Federal Highway Administration (FHWA) has issued explicit guidance or methods to conduct project-level greenhouse gas analysis. As stated on FHWA's climate change website (<http://www.fhwa.dot.gov/hep/climate/index.htm>), climate change considerations should be integrated throughout the transportation decision-making process—from planning through project development and delivery. Addressing climate change mitigation and adaptation up front in the planning process will aid decision-making and improve efficiency at the program level, and will inform the analysis and stewardship needs of project-level decision-making. Climate change considerations can easily be integrated into many planning factors, such as supporting economic vitality and global efficiency, increasing safety and mobility, enhancing the environment, promoting energy conservation, and improving the quality of life. Because there have been more requirements set forth in California legislation and executive orders on climate change, the issue is addressed in a separate California Environmental Quality Act (CEQA) discussion at the end of this chapter and may be used to inform the National Environmental Policy Act (NEPA) decision. The four strategies set forth by FHWA to lessen climate change impacts do correlate with efforts that the State has undertaken and is undertaking to deal with transportation and climate change; the strategies include improved transportation system efficiency, cleaner fuels, cleaner vehicles, and reduction in the growth of vehicle hours travelled.

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## **2.2.5 Noise and Vibration**

### ***Regulatory Setting***

The National Environmental Policy Act (NEPA) of 1969 and the California Environmental Quality Act (CEQA) provide the broad basis for analyzing and abating highway traffic noise effects. The intent of these laws is to promote the general welfare and to foster a healthy environment. The requirements for noise analysis and consideration of noise abatement and/or mitigation, however, differ between NEPA and CEQA.

#### **California Environmental Quality Act**

CEQA requires a strictly baseline versus build analysis to assess whether a proposed project will have a noise impact. If a proposed project is determined to have a significant noise impact under CEQA, then CEQA dictates that mitigation measures must be incorporated into the project unless those measures are not feasible. The CEQA noise analysis is included at the end of this section.

#### **National Environmental Policy Act and 23 CFR 772**

For highway transportation projects with FHWA (and the Department, as assigned) involvement, the federal-Aid Highway Act of 1970 and the associated implementing regulations (23 CFR 772) govern the analysis and abatement of traffic noise impacts. The regulations require that potential noise impacts in areas of frequent human use be identified during the planning and design of a highway project. The regulations include noise abatement criteria (NAC) that are used to determine when a noise impact would occur. The NAC differ depending on the type of land use under analysis. For example, the NAC for residences (67 dBA) is lower than the NAC for commercial areas (72 dBA). The following table lists the noise abatement criteria for use in the NEPA 23 CFR 772 analysis. Please refer to Table 27 for Noise Abatement Criteria for both interior and exterior noise levels, and Figure 40 lists common activities that will illustrate the noise levels.

**Table 27: Noise Abatement Criteria**

Activity Category	NAC, Hourly A-Weighted Noise Level, Leq(h)	Description of activity category
A	57 (Exterior)	Lands on which serenity and quiet are of extraordinary significance and serve an important public need and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose.
B <sup>1</sup>	67 (Exterior)	Residential.
C <sup>1</sup>	67 (Exterior)	Active sport areas, amphitheaters, auditoriums, campgrounds, cemeteries, day care centers, hospitals, libraries, medical facilities, parks, picnic areas, places of worship, playgrounds, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, recreation areas, Section 4(f) sites, schools, television studios, trails, and trail crossings.
D	52 (Interior)	Auditoriums, day care centers, hospitals, libraries, medical facilities, places of worship, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, schools, and television studios.
E	72 (Exterior)	Hotels, motels, offices, restaurants/bars, and other developed lands, properties, or activities not included in A–D or F.
F	No NAC—reporting only	Agriculture, airports, bus yards, emergency services, industrial, logging, maintenance facilities, manufacturing, mining, rail yards, retail facilities, shipyards, utilities (water resources, water treatment, electrical, etc.), and warehousing.
G	No NAC—reporting only	Undeveloped lands that are not permitted.
<sup>1</sup> Includes undeveloped lands permitted for this activity category.		

**Figure 40: List of Noise Levels Common Activities**

Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
Jet Fly-over at 300m (1000 ft)	110	Rock Band
Gas Lawn Mower at 1 m (3 ft)	100	
Diesel Truck at 15 m (50 ft), at 80 km (50 mph)	90	Food Blender at 1 m (3 ft)
Noisy Urban Area, Daytime	80	Garbage Disposal at 1 m (3 ft)
Gas Lawn Mower, 30 m (100 ft)	70	Vacuum Cleaner at 3 m (10 ft)
Commercial Area		Normal Speech at 1 m (3 ft)
Heavy Traffic at 90 m (300 ft)	60	
Quiet Urban Daytime	50	Large Business Office
		Dishwasher Next Room
Quiet Urban Nighttime	40	Theater, Large Conference Room (Background)
Quiet Suburban Nighttime		Library
Quiet Rural Nighttime	30	Bedroom at Night,
	20	Concert Hall (Background)
		Broadcast/Recording Studio
	10	
Lowest Threshold of Human Hearing	0	Lowest Threshold of Human Hearing

According to the Department's *Traffic Noise Analysis Protocol for New Highway Construction and Reconstruction Projects*, August 2006, or if the project is using the 2011 Noise Protocol *Traffic Noise Analysis Protocol for New Highway Construction and Reconstruction Projects*, May 2011, a noise impact occurs when the predicted future noise level with the project substantially exceeds the existing noise level (defined as a 12 dBA or more increase) or when the future noise level with the project approaches or exceeds the NAC. Approaching the NAC is defined as coming within 1 dBA of the NAC.

If it is determined that the project will have noise impacts, then potential abatement measures must be considered. Noise abatement measures that are determined to be reasonable and feasible at the time of final design are incorporated into the project plans and specifications. This document discusses noise abatement measures that would likely be incorporated in the project.

### *I-110 Flyover Project*

The Department's *Traffic Noise Analysis Protocol* sets forth the criteria for determining when an abatement measure is reasonable and feasible. Feasibility of noise abatement is basically an engineering concern. A minimum 5 dBA reduction 7 dBA (for projects using the 2011 Noise Protocol and is part of the reasonableness analysis in the future noise level must be achieved for an abatement measure to be considered feasible. Other considerations include topography, access requirements, other noise sources, and safety considerations. The reasonableness determination is basically a cost-benefit analysis. Factors used in determining whether a proposed noise abatement measure is reasonable include: residents' acceptance and the cost per benefited residence.

## **Affected Environment**

This project is considered a Type 1 Project, which is defined by Federal Highway Administration (FHWA) as a proposed Federal or Federal –aid highway project for the construction of a highway on a new location, or the physical alteration of an existing highway which significantly changes either the horizontal or vertical alignment, or increases the number of through traffic lanes.

According to the Traffic Noise Study Report (April 2015), a field investigation was conducted to identify land uses that could be subject to traffic and construction noise impacts from the proposed project. The following categories were identified in the area: residential were identified as Activity Category B, schools and medical facilities were identified as Activity Category C, places of worship were identified as Activity Category C for exterior location and as Activity Category D for interior location land uses in the Project Area. As required by the Protocol, all developed land uses are evaluated in this analysis. However noise abatement is only considered for areas of frequent human use that would benefit from a lowered noise level. Accordingly, this impact analysis focuses on locations with defined outdoor activity areas, such as residential, schools, places of worship and medical facilities.

## **Existing Traffic Noise**

A field noise investigation was conducted to determine existing noise levels and gather information to develop and calibrate the traffic noise model that was used for predicting future noise levels. Existing noise levels were recorded at 7 locations and modeled at 3 locations, which were acoustically representative of the entire area within the limits of the project. The existing ambient noise levels measured were between 63 and 67 decibels (dBA). One long-term (24-hour) noise level readings was conducted to determine the noisiest hour within the project limits. Refer to Table 28 for a summary of short term noise measurements, which shows the highest noise reading at R5 (2315 Flower St.) at 67.3 dBA and the lowest noise reading at R2 (2916 S. Hope St.) at 62.5 dBA. Table 29 for a summary of background noise measurements which is less than 55 dBA for both locations, and Table 30 for a summary of long term measurements at I-110 Figueroa St. Overcrossing which was 71.3 dBA for a 24-hour duration.

The noise measurement sites were selected taking into consideration the following general site requirements:

- Sites were acoustically representative of areas and conditions of interest. They were located at areas of human use
- Sites were clear of major obstructions between source and receiver Microphone positions were more than 10 feet away from reflecting surfaces
- Sites were free of noise contamination by sources other than those of interest. Sites were not located near barking dogs, lawn mowers, pool pumps, air conditioners, etc.
- Sites were not exposed to prevailing meteorological conditions that are beyond the constraints discussed in the Technical Noise Supplement (TeNs)

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**Table 28: Summary of Short-Term Noise Measurements LA-110 between 30th Street and 23rd Street**

Site	Address	Land Use	Date	Start Time	Duration (minutes)	Measured Leq- dBA	Freeway Direction	Number of MF Lanes	Autos	Medium Trucks	Heavy Trucks	Buses	Motorcycles	Observed Speed (mph)
R2	2916 S. Hope St	school	7/23/2014	12:13 PM	10	62.5	SB	5	1637	21	21	5	4	65
							NB	5	1339	14	32	2	2	60
							SB	1	9	0	0	3	on-ramp @ Flower St.	
							NB	1	14	1	0	0	off-ramp @ Adams	
							NB	1	52	2	0	2	HOV off-ramp @ Adams	
R3	2829 S. Grand Ave	Medical facility	7/23/2014	12:32 PM	10	65.6	SB	5	1576	27	23	2	2	65
							NB	5	1328	32	19	2	3	50
							SB	1	15	0	0	4	on-ramp @ Flower St.	
							NB	1	12	1	0	0	off-ramp @ Adams	
							NB	1	39	0	0	0	HOV off-ramp @ Adams	
R4	403 West Adams Blvd	Residential	7/23/2014	12:55 PM	10	64.8	SB	5	1601	32	29	3	1	65
							NB	5	1421	21	17	5	3	30
							SB	1	9	0	0	3	on-ramp @ Flower St.	
							NB	1	14	1	0	0	off-ramp @ Adams	
							NB	1	52	2	0	2	HOV off-ramp @ Adams	
R5	2315 Flower St	Residential	7/24/2014	10:30 AM	10	67.3	SB	5	1436	28	33	4	7	65
							NB	5	1339	26	35	3	2	45-50
R6	621 W. Adams Blvd	Church	7/24/2014	11:16 AM	10	63.2	SB	5	1394	39	32	3	2	65
							NB	5	1513	25	26	2	3	65
							NB	3	439	12	5	9	Figueroa St.	35
							SB	2						

Source: Traffic Noise Report (April 2015)

**Table 29: Summary of Background Noise Measurements**

Site	Address	Freeway Direction	Land Uses	Start Time	Date	Duration (minutes)	Measured Leq dBA
BG1	19 St. James Place	SB	Residential	10:39 AM	8/28/2014	10	54.8
BG2	131 24 th Street	NB	Residential	11:01 AM	8/28/2014	10	53.5

Source: Traffic Noise Report (April 2015)

**Table 30: Summary of Long-Term Measurements I-110 Figueroa Street Overcrossing**

Site	Address	Land Uses	Start Time	Start Date	Duration (Hours)	Noisiest Hour	
						Noise Level (dBA)	Time
R1	514 W Adams Blvd	Church	10:57 AM	7/23/2014	24	71.3	5:17 AM - 6:17 AM

Source: Traffic Noise Report (April 2015)

## **Ground Vibration**

According to the Noise and Vibration Manual (September 2013), there are no Caltrans or Federal Highway Administration standards for vibration. The duration and amplitude of vibration generated by construction and maintenance equipment varies widely depending on the type of equipment and the purpose for which it is being used. The vibration from blasting has a high amplitude and short duration; whereas vibration from grading is lower in amplitude but longer in duration. In assessing vibration from construction and maintenance equipment, it is useful to categorize the equipment by the nature of the vibration generated. Various equipment categories according to type of vibration and/or activities in each category are discussed below. Equipment or activities typical of continuous vibration include

- Excavation equipment
- Static compaction equipment
- Tracked vehicles
- Traffic on a highway
- Vibratory pile drivers
- Pile-extraction equipment
- Vibratory compaction equipment

Equipment or activities typical of single-impact (transient) or low-rate repeated impact vibration include:

- Impact pile drivers
- Blasting
- Drop balls
- “Pogo stick” compactors and crack-and-seat equipment

Equipment typical of high-rate repeated impact vibration includes jackhammers and pavement breakers.

Vibration generated by construction activity has the potential to damage structures. The damage could be structural damage, such as cracking of floor slabs, foundations, columns, beams, or wells, or cosmetic architectural damage, such as cracked plaster, stucco, or tile. Ground vibration also has the potential to disrupt the operation of vibration-sensitive research and advanced technology equipment. This equipment can include optical microscopes, cell probing devices, magnetic resonance imaging (MRI) machines, scanning electron microscopes, photolithography equipment, micro-lathes, and precision milling equipment. The degree to which this equipment is disturbed depends on the type of equipment, how it used, and its support structure. Vibration concerns involving pavement breaking, extensive pile driving, 7.5 m (25 ft) or less from normal residences, buildings, or unreinforced structures, damage is a possibility. If these operations occur within 15 m–30 m (50 ft–100 ft) from historical buildings, buildings in poor condition, or buildings previously damaged in earthquakes damage is possible.

Also mentioned in the Noise and Vibration Manual, the Federal Transit Administration's Transit Noise and Vibration Impact Assessment (Federal Transit Administration 2006) and National Cooperative Highway Research Program (NCHRP) Synthesis 218 (Schexnayder and Ernzen 1999) state that continuous operation at a fixed frequency may be more noticeable to nearby residents, even at lower vibration levels. In addition, the steady-state excitation of the ground may increase the response at the resonance frequency of building components. Response may be unacceptable in cases of fragile historical buildings or vibration sensitive manufacturing processes. Impact pile drivers, conversely, produce high vibration levels for a short duration (0.2 second) any may have sufficient time between impacts to allow any resonant response to decay.



## ***Environmental Consequences***

**Alternative 1 (No-Build Alternative):** The existing condition would remain; therefore, no impact would occur.

**Alternative 2 (Build Alternative):**

### **Potential Construction Impacts**

During the construction phases of the project, noise from construction activities may intermittently dominate the noise environment in the immediate area of construction. Construction noise is regulated by Caltrans standard specifications, Section 7-1.01I, Sound Control Requirements. These requirements state that noise levels generated during construction shall comply with applicable Local, State, and Federal regulations.

Figure 41 summarizes typical noise levels produced by construction equipment commonly used on roadway construction projects. As indicated, equipment involved in construction is expected to generate noise levels ranging from 70 to 90 dBA at a distance of 50 feet. Noise produced by construction equipment would be reduced over distance at a rate of about 6 dBA per doubling of distance. Normally, construction noise levels should not exceed 86 dBA (L<sub>max</sub>) at a distance of 50 feet.

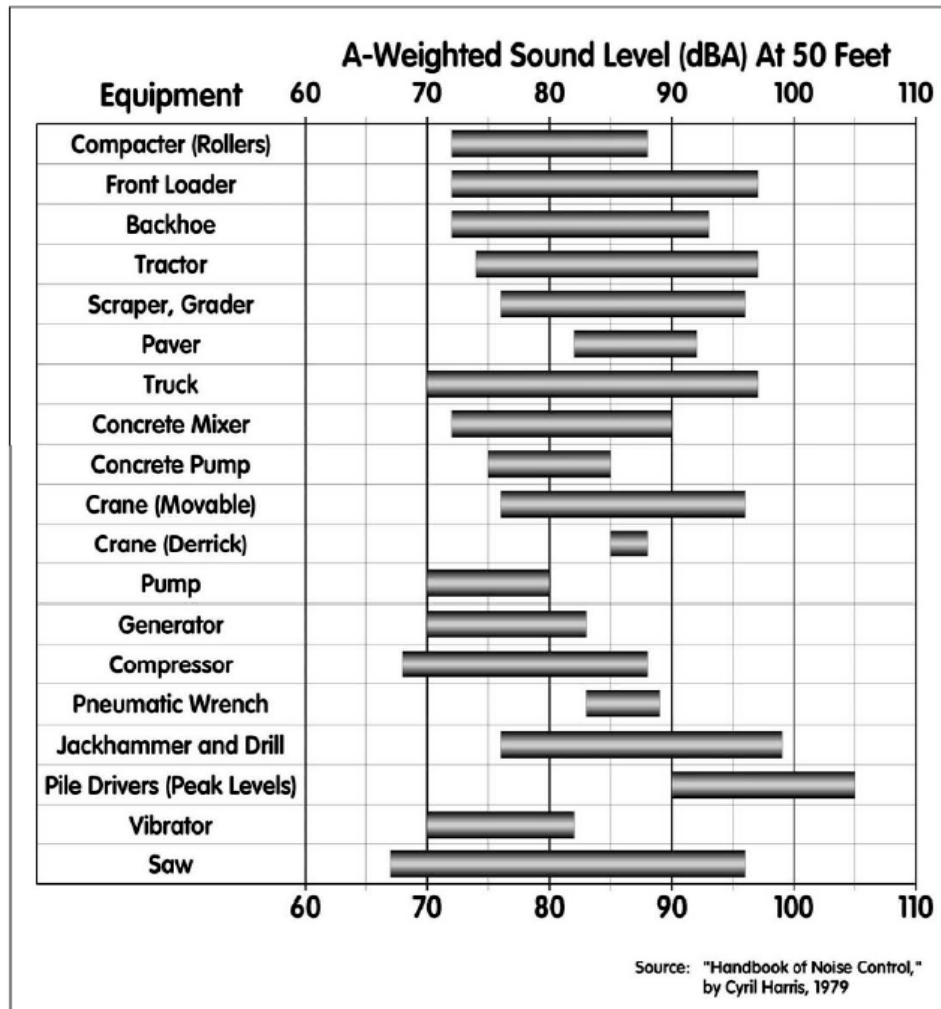
As far as construction vibration effects are concerned, based on construction standards in the Caltrans (2013) Transportation and Construction Vibration Guidance Manual, the probability of exceeding architectural damage risk amplitudes for continuous vibrations (such as excavation equipment, static compaction equipment, tracked vehicles, vibratory pile drivers, pile extraction equipment, and vibratory compaction equipment) from construction is very low, and from freeway traffic is practically non-existent.

However, if vibration concerns involve pavement breaking, extensive pile driving, or trains, 25 feet (7.5 meters) or less from normal residences, buildings, or unreinforced structures, damage is a real possibility. This may also be true if these operations occur within 50–100 feet (15–30 meters) from historic buildings, buildings in poor condition, or buildings previously damaged in earthquakes. In any case, extreme care must be taken when sustained pile driving occurs within 25 feet (7.5 meters) of any building, and 50–100 feet (15–30 meters) of a historic building, or a building in poor condition. Although, the exact method of constructing the concrete column supports/bents has not been identified at this stage of the design process, Caltrans is only considering the use of vibration reduction construction methods, such as Cast-In-Place Concrete Piles or Jetting, for Alternative 2 (Proposed Build Alternative).

Additionally, construction-related ground disturbance in the immediate vicinity of St. John's Episcopal Church will occur at more than 160–230 feet from the east side of the St. John's Episcopal Church building. Therefore, no vibration effects to St. John's Episcopal Church building are anticipated. Although there is sufficient distance between the construction site and sensitive receptors, minimization GV-1 below will be implemented in order to ensure that ground vibration is kept to a minimum.

Potential construction impacts will be minimized with the incorporation of avoidance measure N-1, and minimization measures N-2 through N-4.

**Figure 41: Construction Equipment Noise Levels**



Source: Traffic Noise Report (April 2015)

## Potential Operational Impacts

Future noise levels were predicted using traffic characteristics that would yield the worst hourly traffic noise impact on a regular basis. As described in Section 5.3 of the Traffic Noise Report (April 2015), design year (2040) traffic volumes were used as the future traffic for area between 30th Street and Figueroa Street Overcrossing. Table 35 summarizes the traffic noise modeling results for existing conditions and design-year conditions with and without the project.

Predicted design-year traffic noise levels with the project are compared to existing conditions and to design-year no-project conditions. The comparison to existing conditions is included in the analysis to identify traffic noise impacts under 23CFR772. The comparison to future no build condition indicates the traffic noise level slightly increases because of the project resulting from the project at 4 locations R3 (2829 S. Grand Ave.), R4 (403 West Adams Blvd.), M2 (2706 W. 182nd St.), and M3 (2706 W. 182nd St.) as seen in Table 31. This slight dBA increase between existing noise levels and the Build Alternative would be barely perceptible to the human ear. Therefore, under CEQA, no significant noise impact would occur as a result of the project and no mitigation is required. However, under NEPA 23 CFR 772, noise abatement would need to be considered.

As stated in the TeNS, modeling results are rounded to the nearest decibel before comparisons are made. In some cases, this can result in relative changes that may not appear intuitive. An example would be a comparison between sound levels of 64.4 and 64.5 dBA. The difference between these two values is 0.1 dBA. However, after rounding, the difference is reported as 1 dBA. Predicted noise levels have been rounded (to the nearest whole number) only after the determination of traffic noise impacts.

**Table 31: Traffic Noise Measurements & Modeling Results - LA 110**

Receiver	Direction	Location	Land Use	Noise Abatement Category	Field-Measured Noise Level	Modeled Noise Level	K- Factor	Existing Worst-Hour Noise Level ***	Future (2040) No Build Noise Level **	Noise Increase (No Build Vs. Existing)	Future Worst-Hour Noise Level Alternative 2 **	Impact Type	Noise Increase (Build Vs. Existing)	Noise Increase (Build Vs. No Build)
R1^	SB	514 W Adams Blvd	CH	D(52)	45.0	-	-	47.6	45.0	-2.6	46.7	N	-0.9	1.7
M1	SB	514 W Adams Blvd		C(67)	-	61.6	-1	62.3	61.6	-0.7	63.3	N	1.0	1.7
R2	Northbound	2916 S Hope St	S	C (67)	62.5	62.7	-0.2	67.7	63.3	-4.4	63.4	N	-4.3	0.1
R3		2829 S Grand Ave	M		65.6	63.9	1.7	68.8	66.8	-2	67	A/E	-1.8	0.2
R4		403 West Adams Blvd			64.8	66.8	-2	67.7	67.5	-0.2	67.7	A/E	0.0	0.2
R5		2315 Flower St	O		E (72)	67.3	68.7	-1.4	70.4	68.2	-2.2	68.4	N	-2.0
R6^	Southbound	621 W Adams Blvd	CH	D(52)	45.9	-	-	47.6	47.6	0	45.9	N	-1.7	-1.7
R6		621 W Adams Blvd		C (67)	63.2	64.2	-1	64.9	63.3	0	63.7	N	-1.2	0.4
M2		2706 W 182nd St	R	B (67)	-	68	-1	69.6	68.3	-1.3	69.2	A/E	-0.4	0.9
M3		2706 W 182nd St			-	69.7	-1	70.3	69.6	-0.7	70.4	A/E	0.1	0.8
Note: All noise levels are in dBA-Leq(h)      ^ Interior Noise Reading														
Land Use: R=Residential; S=School; CH=Church; M=Medical Facility; O=Office														
Impact Type: N=No Impact; A/E=Approach/Exceed														
**All future Alternative 2 & no build noise levels are based on freeway traffic only														
*** Noise level includes the traffic from the local streets and other sources such as airplane, train, etc														

Source: Traffic Noise Report (April 2015)

Traffic noise impacts are predicted to occur at Activity Categories B (residential) and C (active sport areas, amphitheaters, auditoriums, campgrounds, cemeteries, day care centers, hospitals, libraries, medical facilities, parks, picnic areas, places of worship, playgrounds, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, recreation areas, Section 4(f) sites, schools, television studios, trails, and trail crossings) land uses within the Project Area, and noise abatement has been considered. The following is a discussion of each area where traffic noise impacts are predicted.

**Activity Category A (Exterior Noise Level)** is defined as lands on which serenity and quiet are of extraordinary significance and serve an important public need and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose.

There are no land use activities under this activity category.

**Activity Category B (Exterior Noise Level)** is defined as residential.

All impacted residential areas have been considered for noise abatement. Traffic noise impacts are considered to occur at receiver locations where predicted design year 2040 noise levels approach (within 1) or exceed the Noise Abatement Criteria (NAC) of 67 dBA. It was determined that soundwall would not be feasible at any location for the residential areas due to its location with respect to the freeway, local streets and to the existing Light Rail Transit on the Flower Street.

**Activity Category C (Exterior Noise Level)** is defined as active sport areas, amphitheaters, auditoriums, campgrounds, cemeteries, day care centers, hospitals, libraries, medical facilities, parks, picnic areas, places of worship, playgrounds, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, recreation areas, Section 4(f) sites, schools, television studios, trails, and trail crossings.

1) County Kids Place Kinder Care is located at the corner of 30th Street and Hope Street along northbound I-110. Based on the analysis, noise level impacts have not been predicted to occur at this school under the build alternative. Therefore, no noise abatement has been considered.

2) H Claude Hudson Comprehensive medical facility located at the corner of 28th Street and Hope Street along northbound I-110. Based on the analysis, the exterior area of frequent human use at this medical facility is impacted by the freeway traffic noise. Therefore, noise abatement has been considered in the form of a soundwall. However, based on the analysis, an 8-16 feet soundwall along the freeway provides only 2-3 dB noise reduction, which does not provide the minimum reduction of 5 dB for acoustical feasibility and 7 dB noise reduction to at least one receiver for reasonableness. Therefore, no noise abatement has been considered.

3) Hospital Orthopedic Institute for Children located at the corner of Adams Blvd. and Hope Street along northbound I-110. Since noise impact was identified at this site based on the predicted noise level with the project, it has been determined that due to the configuration of local Streets (Adams Street and Flower Blvd.), a continuous barrier along the right of way would not be possible to construct. Any gaps in a barrier would render it acoustically infeasible. Therefore, no noise barrier would be feasible at any location due to the location of the hospital with respect to the freeway.

4) St John's Cathedral Church is located at the corner of Adams Blvd and Flower Street along southbound I-110. Based on the analysis, no noise impacts were predicted to occur at this church under Build Alternative for both interior and exterior sites at this church. Therefore, no noise abatement has been considered.

5) St Vincent Catholic church is located at the corner of Adams Blvd. and Figueroa St. along southbound I-110. Based on the analysis, no noise impacts were predicted to occur at this church under build alternative for the exterior site at this church. Therefore, no noise abatement has been considered.

**Activity Category D (Interior Noise Level)** is defined as auditoriums, day care centers, hospitals, libraries, medical facilities, places of worship, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, schools, and television studios.

Noise sensitive land uses under this activity category include a day care center and places of worship.

1) St. John's Cathedral Church and St. Vincent Catholic Church- two interior noise measurements were conducted for each one. The interior future worst-hour noise levels for each one within the project limits would not approach or exceed the NAC of 52 dB. The predicted interior noise level for each location is 47.6 dB.

2) County Kids Place Kinder Care – the interior traffic noise level of 43.4 dB within the project limits would not approach or exceed the NAC of 52 dB. This assumes a noise insertion loss of 20 dB or more with the windows closed.

**Activity Category E (Exterior Noise Level)** is defined as hotels, motels, offices, restaurants/bars, and other developed lands, properties, or activities not included in A–D or F.

Noise sensitive land uses under this activity category include a motel and restaurants.

1) New Aater Motel is located at the corner of 29th Street and Flower Street along northbound I-110. This Motel has no area of frequent human use. Therefore, no noise abatement has been considered.

2) There are several restaurants within the project limits a McDonald's, a Panda Express, a Carl's Jr. and Taco Bell; however, these restaurants do not have any outside eating area that would be considered areas of frequent human use.

3) Drafting office is located at the corner of Flower Street and 23rd Street along northbound I-110. This office has a sitting area facing the freeway. The predicted worst-hour noise level of 68 dBA for this site is below the noise abatement criteria level of 72 dBA-Leq (h), which is the equivalent sound level over one hour for a commercial development. Therefore, no noise abatement has been considered.

**Activity Category F** is defined as agriculture, airports, bus yards, emergency services, industrial, logging, maintenance facilities, manufacturing, mining, rail yards, retail facilities, shipyards, utilities (water resources, water treatment, electrical, etc.), and warehousing.

There are several commercial buildings, maintenance facilities, manufacturing, retail facilities, and warehouses located within the project limits. However, these types of land uses are not considered to be sensitive noise receptors. Figure 42 illustrates the location of potential noise receptors.

In conclusion, no operational noise or ground vibration is anticipated as a result of the proposed Build Alternative.

Figure 42: Location of Potential Noise Receptors



Source: Traffic Noise Report (April 2015)



## I-110 Flyover Project

The following section discusses the acoustically feasible sound barriers for this project. In accordance with State and Federal policies, noise barriers are not required to reduce noise levels to below the 67 dB threshold (or other NAC). A noise barrier, however, must be acoustically feasible (provide at least 5 dB noise reduction at impacted receivers) and reasonable (7 dB noise reduction to at least one receiver).

**Table 32: Predicted Noise Reduction for Soundwalls between 30th Street and Adams Blvd, NB I-110. - Alternative 2**

Receiver	Predicted Worst-Hour Noise Level	Soundwall Number(s)	Soundwall Location	8 Ft.		10 Ft.		12 Ft.		14 Ft.		16 Ft.	
				Noise Level (dBA)	Noise Reduction (dBA)	Noise Level (dBA)	Noise Reduction (dBA)	Noise Level (dBA)	Noise Reduction (dBA)	Noise Level (dBA)	Noise Reduction (dBA)	Noise Level (dBA)	Noise Reduction (dBA)
R3	67	SW-1+SW-2 +SW-3	R/W	65	2	65	2	65	2	65	2	65	3
R/W Right of Way													
Note: Soundwall heights that provide 5 dBA or more noise reduction are in bold and yellow shaded													
Feasibility Requirement: Soundwall must provide at least 5 dB noise reduction at impacted receiver													
Reasonableness Requirement: Soundwall must provide at least 7 dB noise reduction at one or more benefited receptors													

Source: Traffic Noise Report (April 2015)

### Existing Sound Barriers

There are no existing sound barriers within the project limits. Refer to Figure 42 for a map of potential noise receptors.

### Description of Acoustically Feasible Sound Barriers

Noise abatement has been considered in the form of soundwalls for the impacted receptors.

However, it has been determined that due to the location of receivers and the configuration of local streets, a continuous barrier along the right of way would not be possible to construct. Any gaps in a barrier would render it acoustically infeasible.

### Description of Acoustically NOT Feasible Sound Barriers

Soundwalls SW-1 + SW-2 + SW-3, analyzed (Table 32 shows the predicted noise reduction for soundwalls between 30<sup>th</sup> street and Adams Blvd, NB I-110-Alternative 2) on the right of way along the northbound I-110 would not provide the minimum required noise reduction of 5 decibel to the impacted receivers (represented by sites R2 (2916 S. Hope Street) and R3(2829 S. Grand Ave) that are located higher above the freeway in elevation, and these soundwalls (up to 16 ft. in height) were deemed to be not acoustically feasible due to topography in the area.



**Avoidance, Minimization, and/or Noise Abatement Measures**

**Avoidance N-1:** Equipment Noise Control will be applied to revising old equipment and designing new equipment to meet acceptable noise levels.

- Mufflers are very effective devices which reduce the noise emanating from the intake or exhaust of an engine, compressor, or pump. The fitting of effective mufflers on all new equipment and retrofitting of mufflers on existing equipment is necessary to yield an immediate noise reduction at all types of road construction sites
- Sealed and lubricated tracks for crawler mounted equipment will lessen the sound radiated from the track assembly resulting from metal to soil and metal to metal contact. Contractors, site engineers, and inspectors should ensure that the tracks are kept in excellent condition by periodic maintenance and lubrication
- Lowering exhaust pipe exit height closer to the ground can result in an off-site noise reduction. Barriers are more effective in attenuating noise when the noise source is closer to ground level
- General noise control technology can have substantially quieter construction equipment when manufacturers apply state-of-the-art technology to new equipment or repair old equipment to maintain original equipment noise levels

**Minimization N-2:** In-Use Noise Control where existing equipment is not permitted to produce noise levels in excess of specified limits.

Any equipment that produces noise levels less than the specified limits would not be affected. However, those exceeding the limit would be required to meet compliance by repair, retrofit, or replacement. New equipment with the latest noise sensitive components and noise control devices are generally quieter than older equipment, if properly maintained and inspected regularly. They should be repaired or replaced if necessary to maintain the in-use noise limit. All equipment applying the in use noise limit would achieve an immediate noise reduction if properly enforced.

**Minimization N-3:** Site Restrictions is an attempt to achieve noise reduction through modifying the time, place, or method of operation of a particular source. Site restrictions should be applied to achieve noise reduction through different methods, resulting in an immediate reduction of noise emitted to the community without requiring any modification to the source noise emissions. The methods include shielding with barriers for equipment and site, truck rerouting and traffic control, time scheduling, and equipment relocation. The effectiveness of each method depends on the type of construction involved and the site characteristics.

Shielding with barriers should be implemented at an early stage of a project to reduce construction equipment noise. The placement of barriers must be carefully considered to reduce limitation of site access. Barriers may be natural or man-made, such as excess land fill used as a temporary berm strategically placed to act as a barrier.

- Efficient rerouting of trucks and control of traffic activity on construction site will reduce noise due to vehicle idling, gear shifting and accelerating under load. Planning proper traffic control will result in efficient workflow and reduce noise levels. In addition, rerouting trucks does not reduce noise levels but transfers noise to other areas that are less sensitive to noise
- Time scheduling of activities should be implemented to minimize noise impact on exposed areas. Local activity patterns and surrounding land uses must be considered in establishing site curfews. However, limiting working hours can decrease productivity. Sequencing the use of equipment with relatively low noise levels versus with relatively high noise levels during noise sensitive periods is an effective noise control measure
- Equipment location should be as far from noise sensitive land use areas as possible. The contractor should substitute quieter equipment or use quieter construction processes at or near noise sensitive areas

**Minimization N-4:** Personal Training of operators and supervisors is needed to become more aware of the construction site noise problems.

Educating contractors and their employees to be sensitive to noise impact problems and noise control methods. This may be one of the most cost-effective ways to help operators and supervisors become more aware of the construction site noise problem and to implement the various methods of improving the conditions. A training program for equipment operators is recommended to instruct them in methods of operating their equipment to minimize environmental noise. Many training programs are presently given on the subject of job safety. This can be extended to include the impact due to noise and of abatement.

**Minimization GV-1:** As recommended in the Noise and Vibration Manual (September 2013), impact pile driving can be the most significant source of vibration at construction sites. The principal means of reducing vibration from impact pile driving are listed below. Some of these methods may not be appropriate in specific situations, but where they are practical; they can often be used to reduce vibration to an acceptable level.

- **Jetting:** Jetting is a pile driving aid in which a mixture of air and water is pumped through high-pressure nozzles to erode the soil adjacent to the pile to facilitate placement of the pile. Jetting can be used to bypass shallow, hard layers of soil that would generate high levels of vibration at or near the surface if an impact pile driver was used
- **Pre-drilling:** Pre-drilling a hole for a pile can be used to place the pile at or near its ultimate depth, thereby eliminating most or all impact driving.
- **Using cast-in-place or auger cast piles:** Using cast-in-place or auger cast piles eliminates impact driving and limits vibration generation to the small amount generated by drilling, which is negligible

- **Using non-displacement piles:** Use of non-displacement piles such as H piles may reduce vibration from impact pile driving because this type of pile achieves its capacity from end bearing rather than from large friction transfer along the pile shaft
- **Using pile cushioning:** With pile cushioning, a resilient material is placed between the driving hammer and the pile to increase the period of time over which the energy from the driver is imparted to the pile. Keeping fresh, resilient cushions in the system can reduce the vibration generated by as much as a factor of 2 (Woods 1997)
- **Scheduling for specific times to minimize disturbance at nearby vibration-sensitive sites:** Adverse effects can be avoided if pile driving is not scheduled for times at which vibration could disturb equipment or people. For example, if pile driving near a residential area can be scheduled during business hours on weekdays, many people will be at work and will therefore not be affected
- **Using alternative nonimpact drivers:** Several types of proprietary pile driving systems have been designed specifically to reduce impact induced vibration by using torque and down-pressure or hydraulic static loading. These methods would be expected to significantly reduce adverse vibration effects from pile placement. The applicability of these methods depends in part on the type of soil

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## **2.3 Biological Environment**

### **2.3.1 Natural Communities**

This section of the document discusses natural communities of concern. The focus of this section is on biological communities, not individual plant or animal species. This section also includes information on wildlife corridors and habitat fragmentation if any. Wildlife corridors are areas of habitat used by wildlife for seasonal or daily migration. Habitat fragmentation involves the potential for dividing sensitive habitat and thereby lessening its biological value.

#### ***Affected Environment***

According to the Natural Environment Study (October 2014), the environmental setting is completely urbanized in downtown Los Angeles. Topography is relatively flat. The only vegetation is ornamental plantings and some ruderal species associated with vacant lots. Some vegetation in the area includes eucalyptus, several palm species, pittosporum, and iceplant, among others. Animal life is very minimal, and would include the common gopher, Norway rat, American crow, and house pigeon. The rodents do attract an occasional raptor in the area.

#### ***Environmental Consequences***

**Alternative 1 (No-Build Alternative):** The existing condition would remain; therefore, no impact would occur.

**Alternative 2 (Build Alternative):** Biological communities are not anticipated to be impacted by the proposed Build Alternative due to the location of the proposed project. Further, biological conditions are highly compromised. There are no sensitive species or habitats of concern in the project area.

No construction/operational impacts to biological communities are anticipated as a result of the Build Alternative.

#### ***Avoidance, Minimization, and/or Mitigation Measures***

No avoidance, minimization, and/or mitigation measures are required because no impacts to biological communities are anticipated.

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### **2.3.2 Animal Species**

#### ***Regulatory Setting***

Many state and federal laws regulate impacts to wildlife. The U.S. Fish and Wildlife Service (USFWS), the National Oceanic and Atmospheric Administration's National Marine Fisheries Service (NOAA Fisheries Service) and the California Department of Fish and Wildlife (CDFW) are responsible for implementing these laws. This section discusses potential impacts and permit requirements associated with animals not listed or proposed for listing under the federal or state Endangered Species Act. All other special-status animal species are discussed here, including CDFW fully protected species and species of special concern, and USFWS or NOAA Fisheries Service candidate species.

Federal laws and regulations relevant to wildlife include the following:

- National Environmental Policy Act
- Migratory Bird Treaty Act
- Fish and Wildlife Coordination Act
- State laws and regulations relevant to wildlife include the following:
  - California Environmental Quality Act
  - Sections 1600 – 1603 of the California Fish and Game Code
  - Sections 4150 and 4152 of the California Fish and Game Code

#### ***Affected Environment***

The environmental setting is completely urbanized in downtown Los Angeles. Biological conditions are highly compromised. Animal life is very minimal, and would include the common gopher, Norway rat, American crow, and house pigeon. The rodents do attract an occasional raptor in the area.

#### ***Environmental Consequences***

**Alternative 1 (No-Build Alternative):** The existing condition would remain; therefore, no impact would occur.

**Alternative 2 (Build Alternative):**

#### **Potential Construction Impacts**

There are no sensitive species or habitats of concern in the project area. Impacts to birds are anticipated if construction activities are completed within bird nesting season (March 1<sup>st</sup> through September 1<sup>st</sup>). If construction occurs during this time, avoidance measure BIO-1 will be implemented to avoid impacts to birds.

## **Potential Operational Impacts**

No operational impacts to animal species is anticipated as a result of the proposed Build Alternative.

### ***Avoidance, Minimization, and/or Mitigation Measures***

**Avoidance BIO-1:** Avoid construction during bird nesting season, or at a minimum grub the vegetation outside the bird nesting season. If this cannot be done, then a biological survey will be required no more than 5 days in advance of grubbing for nesting birds. Further, if any bird nests are found, then a buffer of 150 feet for songbirds and 500 feet for raptors will be required until the nestlings have fledged. This is per the federal Migratory Bird Treaty Act.



## **2.4 Cumulative Impacts**

### ***Regulatory Setting***

Cumulative impacts are those that result from past, present, and reasonably foreseeable future actions, combined with the potential impacts of this proposed project. A cumulative effect assessment looks at the collective impacts posed by individual land use plans and projects. Cumulative impacts can result from individually minor but collectively substantial impacts taking place over a period of time.

Cumulative impacts to resources in the project area may result from residential, commercial, industrial, and highway development, as well as from agricultural development and the conversion to more intensive agricultural cultivation. These land use activities can degrade habitat and species diversity through consequences such as displacement and fragmentation of habitats and populations, alteration of hydrology, contamination, erosion, sedimentation, and disruption of migration corridors, changes in water quality, and introduction or promotion of predators. They can also contribute to potential community impacts identified for the project, such as changes in community character, traffic patterns, housing availability, and employment.

California Environmental Quality Act (CEQA) Guidelines Section 15130 describes when a cumulative impact analysis is necessary and what elements are necessary for an adequate discussion of cumulative impacts. The definition of cumulative impacts under CEQA can be found in Section 15355 of the CEQA Guidelines. A definition of cumulative impacts under the National Environmental Policy Act (NEPA) can be found in 40 Code of Federal Regulations (CFR), Section 1508.7 of the Council on Environmental Quality (CEQ) Regulations.

## **Affected Environment**

### **Methodology**

Cumulative impacts were identified by comparing the impacts of the proposed project and other past, current, or proposed actions in the area to establish whether, in the aggregate, they could result in cumulative environmental impacts. Both direct and indirect impacts are assessed. The cumulative effects analysis focuses on those issues and resources that would be affected by the combination of stress factors on the environment and does not address in detail those topics that would not have additional environmental effects from the cumulative condition. The analysis provided in this section considered the effects of the other projects and the Build Alternative in assessing whether a particular environmental parameter would experience cumulative adverse impacts. Specific geographic boundaries for cumulative effects are determined for each environmental topic analyzed and may vary accordingly. Future actions anticipated to occur include further growth within the City and County. The growth would require continued expansion of supporting infrastructure such as roadways, commercial uses, public services, and utilities. The anticipated growth is reflected in the regionally adopted growth projections and is planned for in the City and County General Plans.

The cumulative impact analysis builds upon information derived from the direct and indirect impacts analyses. The first step in performing the cumulative impact analysis is to identify which resources to consider in the analysis. If a project will not cause direct or indirect impacts on a resource, it will not contribute to a cumulative impact on that resource. The cumulative impact analysis should focus only on: 1) those resources significantly impacted by the project; or 2) resources currently in poor or declining health or at risk even if project impacts are relatively small (less than significant). “The resources subject to a cumulative impact assessment should be determined on a case-by-case basis early in the NEPA process, generally as part of early coordination or scoping” (FHWA 2003 Guidance).

Please note that a quantification of cumulative impacts is not feasible for some impact topics and would be speculative. Therefore, much of the cumulative evaluation is a qualitative judgment regarding the combined effects of the relationship among the projects included in the Resource Study Area (RSA) for each resource. In some cases, application of the identified project mitigation and/or minimization program may reduce the cumulative impacts as well as the project impact.

As discussed previously, this project is within the South Los Angeles and Southeast Los Angeles Community Plan Areas. Regionally, development trends in the greater Los Angeles area are shifting from development of vacant lands to infill, redevelopment, and transit oriented development. Land use policies for future development within unincorporated areas are geared towards the implementation of smart growth policies, environmental management, and provision of healthy and livable communities. Transportation improvements within the greater Los Angeles area are focused on re-working the existing system and transitioning to a more transit-based system that will encourage transit-oriented development and improve area circulation and health for area residents. This section takes into consideration past, present, and reasonably foreseeable future actions, combined with the potential impacts of this proposed project. Table 33 lists potential projects within/near the South and Southeast Los Angeles Community Plan Areas that are considered in the cumulative impacts analysis.

*I-110 Flyover Project*

**Table 33: List of Potential Project within/near the South & Southeast Los Angeles Community Plans Areas Considered in the Cumulative Impacts Analysis**

<b><u>Name/Location</u></b>	<b><u>Jurisdiction</u></b>	<b><u>Proposed Uses</u></b>	<b><u>Status</u></b>
<b>FIGUEROA CORRIDOR BIKEWAY (MyFig Project)</b> /Figueroa Street from 7th Street in downtown Los Angeles to 41st Street, just south of Exposition Park; 11th Street from Figueroa Street east to Broadway in the South Park neighborhood of downtown Los Angeles; and Martin Luther King Jr. Boulevard from Figueroa Street west to Vermont Avenue, on the south edge of Exposition Park.	City of Los Angeles	Seeks to transform the Figueroa Corridor into a complete, multimodal street that better serves the needs of pedestrians, bicyclists, and transit riders, while still accommodating drivers.	Completion is anticipated in December, 2016
<b>UNIVERSITY OF SOUTHERN CALIFORNIA (USC) OWNED PROPERTY POTENTIAL PROJECTS/USC Campus</b>	USC	New Academic and Administrative Buildings, New Mixed-Use University Village, create pedestrian friendly area	To be determined
<b>G12 PROJECT</b> /Three-acre site bounded by Twelfth and Olive streets, Pico Boulevard and Grand Avenue	Developer Sonny Astani and L&R Group	Residential complex with 640 units.	Ground breaking is yet to be determined
<b>OLYMPIC AND BROADWAY CONDOS</b> /955 S. Broadway	Developer Barry Shy	A 15-story condominium complex, The 184,705-square-foot structure would bring 163 housing units and eight commercial spaces to the corner of Broadway and Olympic Boulevard	No timeline for construction has been revealed
<b>OLYMPIC AND HILL APARTMENTS</b> /Olympic and Hill	Developer he Hanover Company	281-apartment complex, seven floors of housing along with 16,000 square feet of street-level retail	Completion is anticipated 2015
<b>ONYX Project</b> / Pico Boulevard at Flower and Hope streets	Developer Jade Enterprises	The first of two buildings in the complex at Pico Boulevard at Flower and Hope streets will bring 162 apartments and 13,200 square feet of retail space. The seven-story Onyx is rising on two side-by-side parking lots atop a total of 42,000 square feet of retail and commercial space.	Completion is anticipated 2017
<b>BLOSSOM PLAZA</b> /900 N. Broadway	Developer Forest City	Five-story Blossom Plaza will have 237 apartments (with 53 reserved for low-income residents), a 17,000-square-foot public plaza and a walkway connecting the Metro Gold Line station to Broadway in the heart of Chinatown.	Completion is anticipated in Spring of 2016

### *I-110 Flyover Project*

<b><u>Name/Location</u></b>	<b><u>Jurisdiction</u></b>	<b><u>Proposed Uses</u></b>	<b><u>Status</u></b>
<b>CITY MARKET</b> /Bounded by Ninth, San Pedro, San Julian and 12th streets,	City Market owner Peter Fleming	945 residential units, 210 hotel rooms, 225,000 square feet of retail and 295,000 square feet of creative office space. The first phase calls for transforming two aged buildings: One would hold 150 housing units and the other would be an office structure.	Completion is anticipated in 2034
<b>FIGUEROA CENTRAL</b> /A 4.6-acre site immediately east of Staples Center	Beijing's Oceanwide Real Estate Group.	Build the massive mixed-use Figueroa Central project on the property, with 45- and 33-story towers, 220 hotel rooms and additional retail space.	Completion is anticipated to be in 2018
<b>METROPOLIS</b> /The 6.33-acre Metropolis site is bounded by the I-110 Freeway and Francisco, Eighth and Ninth streets	Greenland Group	Create two towers joined by a large public plaza. One will be a 38-story building with about 300 units while the other will be a 19-story hotel with 350 rooms.	Completion is anticipated to be in 2016
<b>REGIONAL CONNECTOR</b> /Underground tunneling from Little Tokyo to the Financial District by way of Second Street, as well as a trench down Flower Street to Wilshire Boulevard.	Metro	Regional Connector that will connect a series of light rail lines, create three new stations, and streamline travel throughout the region.	Completion is anticipated to be in 2019
<b>EMBASSY HOTEL AND THEATRE</b> /849 S. Grand Ave.	Chetrit Group	183-room hotel featuring an approximately 2,000-square-foot ground-floor restaurant, a 7,600-square-foot outdoor garden, a lobby bar and a lounge.	Completion is anticipated to be in 2015
<b>PHARMACY</b> /Washington Blvd./Hoover St.	City of Los Angeles	New one-story 16,572 square feet retail pharmacy with 24 hour operation	To be determined

## ***Environmental Consequences***

### **Land Use**

#### **Resource Study Area (RSA)**

RSA boundary used in the assessment of cumulative impacts involving land use is defined as the South and Southeast Los Angeles Community Plan Areas refer to Figure 5.

#### **Existing Condition within RSA**

The RSA Study Area is urbanized with little to no space for new development. Development trends are shifting from development of vacant lands to infill, redevelopment, and transit oriented development. Land use policies for future development within unincorporated areas are geared towards the implementation of smart growth policies, environmental management, and provision of healthy and livable communities. The land uses include: residential, commercial, industrial and small patches of open space. Numerous historical properties are within the RSA.

#### **Potential Direct and/or Indirect Impacts within RSA**

The proposed project would not result in any change in land use or zoning and would comply with the pertinent general plan policies. Minimal right of way will be required for the proposed project, and no displacements would occur, and relocations would not be necessary. The proposed project would not conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the proposed project (including a general plan, specific plan, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect. Therefore, the project is consistent with local plans and policies and would not result in any adverse impacts, either individually or cumulatively, on land use and planning.

#### **Cumulative Impact Potential**

There is no potential for impacts on land use and planning and the community at large as a result of the proposed project. The related projects are expected to comply with environmental regulations and other local plans and policies and would likely be consistent with any land use plans. The TMP prepared for each project would take into account cumulative projects within its vicinity. Based on the lack of potential for impacts as a result of the proposed project and the small scale of the projects listed in Table 33, the proposed project would not result in any cumulatively considerable land use impacts.

## **Community Character and Cohesion**

### **RSA**

RSA boundary used in the assessment of cumulative impacts involving community character and cohesion is defined as the South and Southeast Los Angeles Community Plan Areas.

### **Existing Condition within RSA**

Field surveys and discussions with local public officials and community leaders, and historical preservation organizations provided insight into the community's character and cohesiveness which confirmed a high level of community cohesion within the RSA. The community currently uses Figueroa Way as a short cut to access the surrounding community. Currently, there is no separation between vehicular traffic and bicycle traffic. There are several historical properties within the project study area (refer to Figure 29 map of historical properties near the proposed project).

### **Potential Direct and/or Indirect Impacts within RSA**

There are positive impacts (project benefits) such as improving access to the surrounding land uses for various community members with various income levels whether they are driving in an automobile/carpooling, using public transportation, walking or bicycling. This project will improve access to jobs and community services within the project study area. Improved access to local business by improving circulation and safety which will encourage economic growth. Access to Figueroa Way will be limited and/or non-existent during construction to all users (pedestrians, bicyclists, public transportation users (Metro bus stop on Figueroa Way will be moved), and motorists. Further, after construction Figueroa Way will be closed to vehicular traffic, and the bus stop will be permanently moved. All users of Figueroa Way will be impacted by the proposed project, but with the incorporation of the following measures the impact is minimized (refer to section 2.1.8 in this document for details of each measure):

**Minimization T-1:** A TMP will be implemented to minimize direct and cumulative construction impacts on the community. The TMP shall be developed in consultation with the Los Angeles Department of Transportation and the California Department of Transportation, and it shall be provided with the construction plan to the City of Los Angeles Police Department and the City of Los Angeles Fire Department prior to commencement of construction activities. The TMP shall include the following implementation plans:

**Public Information:** Provide project updates to affected residents and businesses, including the general public, via brochures and mailers, community meetings, and web site information.

**Motorist Information:** Provide project information using changeable message signs and ground-mounted signs.

**Incident Management:** Implement construction zone enhanced enforcement program, freeway service patrol, and California Highway Patrol traffic handling.

**Traffic Management during Construction:** Provide a traffic lane closure chart, detour routes, pedestrian routes, residential and commercial access routes, and temporary traffic signals during construction.

Following Policies and Guidelines during Construction: Construction activities would be conducted in accordance with Caltrans guidelines.

**Mitigation P&B-1:** Re-design Figueroa Way to encourage pedestrian and bicycle use. This may include upgrading sidewalks, improving lighting, landscaping, adding a bike pathway or lane on Figueroa Way, and signage to ensure the safety of pedestrians, bicyclists, and persons with disabilities that use Figueroa Way as a short cut to access the surrounding community.

**Minimization BUS-1:** The Metro Silver Line bus stop on Figueroa Way will be consolidated with the currently existing bus stop on Figueroa Street and 23<sup>rd</sup> St. Therefore, bus service will still be available.

### **Cumulative Impact Potential**

The potential impacts are limited to the project study area and with the implementation of the before mentioned avoidance, minimization, and/or mitigation measures potential impacts are minimized. If other projects in the area (listed in Table 33) are under construction simultaneously this could be cumulatively considerable. The following projects may be in construction at the same time as the proposed project: USC Projects on USC campus/owned property, G-12 Project (Three-acre site bounded by Twelfth and Olive streets, Pico Blvd. and Grand Ave.), the Olympic and Broadway Condos, City Market Project (Bounded by Ninth, San Pedro, San Julian and 12th streets, and the pharmacy, which will be located on Washington Blvd. and Hoover St. All these projects will be required to implement a TMP, and consider other projects in the area, as well as follow all laws and regulations to minimize environmental impacts to the community. Therefore, cumulative impacts are not anticipated as a result of the proposed Build Alternative.

## **Emergency Services**

### **RSA**

The RSA for emergency services is the project study area.

### **Existing Condition within RSA**

The existing delay, and bottleneck intersections surrounding the proposed project may negatively impact response times in the future as seen in the Traffic and Transportation section 2.1.8 of this document if Alternative 1 is chosen.

### **Potential Direct and/or Indirect Impacts within RSA**

During construction of the project, there would be potential for direct and indirect impacts on emergency services. Closure of Figueroa Way during construction may affect emergency response times to some parts of the study area. Avoidance and minimization measures are proposed, including the preparation of a TMP and notifying local emergency services of proposed construction activities. This would ensure that emergency services have adequate information to plan detour routes. The project in the long term would benefit emergency services by reducing congestion and improving travel time refer to section 2.1.8 Traffic and Transportation for traffic data that shows improvement in travel times. After construction first responders will be able to use Figueroa Way in case of an emergency on the westerly side of the proposed elevated structure.

### **Cumulative Impact Potential**

Construction activities for one or more of the related projects in the area could result in temporary, localized, site-specific disruptions, including partial and/or complete street and lane closures and detours. If the activities occur at the same time, this could cumulatively increase response times for emergency vehicles during construction. Potential disruptions to emergency services could be avoided through implementation of the following minimization measure T-1. The preparation of a TMP would take into consideration other projects in the area. The TMP would include provisions to notify the local fire and police stations that would potentially be affected of any planned partial or complete street closures or traffic diversions. Therefore, the cumulative effects of construction, should they occur, would be minor and temporary.

## **Traffic and Transportation, Bicycle and Pedestrian Facilities**

### **RSA**

The SCAG region covered under the RTP is the appropriate RSA for evaluating cumulative impacts at a regional level. For localized effects, area covered by the potential projects listed in Table 37 which fall within South and Southeast Los Angeles Community Plan Areas is considered the RSA.

### **Existing Condition within RSA**

Currently, the traffic delay times are high and future delay times are anticipated to worsen if no action is taken (see section 2.1.8 in this document). A Metro bus stop is located on Figueroa Way. The community currently uses Figueroa Way as a short cut to access the surrounding community. Currently, there is no separation between vehicular traffic and bicycle traffic on Figueroa Way.



### **Potential Direct and/or Indirect Impacts within RSA**

Once constructed, the project would result in a beneficial impact on regional and local traffic conditions (see section 2.1.8 Traffic and Transportation) for the results of implementing the Build Alternative. The bus stop located on Figueroa Way will be moved to Figueroa St. and 23<sup>rd</sup> St. Access to Figueroa Way by all users would be limited/non-existent during construction. After construction, Figueroa Way will be closed to vehicular traffic. With the incorporation of the following measures the impacts are minimized.

**Minimization T-1:** A TMP will be implemented to minimize direct and cumulative construction impacts on the community. The TMP shall be developed in consultation with the Los Angeles Department of Transportation and the California Department of Transportation, and it shall be provided with the construction plan to the City of Los Angeles Police Department and the City of Los Angeles Fire Department prior to commencement of construction activities. The TMP shall include the following implementation plans:

**Public Information:** Provide project updates to affected residents and businesses, including the general public, via brochures and mailers, community meetings, and web site information.

**Motorist Information:** Provide project information using changeable message signs and ground-mounted signs.

**Incident Management:** Implement construction zone enhanced enforcement program, freeway service patrol, and California Highway Patrol traffic handling.

**Traffic Management during Construction:** Provide a traffic lane closure chart, detour routes, pedestrian routes, residential and commercial access routes, and temporary traffic signals during construction.

**Following Policies and Guidelines during Construction:** Construction activities would be conducted in accordance with Caltrans guidelines.

**Mitigation P&B-1:** Re-design Figueroa Way to encourage pedestrian and bicycle use. This may include upgrading sidewalks, improving lighting, landscaping, adding a bike pathway or lane on Figueroa Way, and signage to ensure the safety of pedestrians, bicyclists, and persons with disabilities that use Figueroa Way as a short cut to access the surrounding community.

**Minimization BUS-1:** The Metro Silver Line bus stop on Figueroa Way will be consolidated with the currently existing bus stop on Figueroa Street and 23<sup>rd</sup> Street. Therefore, bus service will still be available.

### **Cumulative Impact Potential**

At the regional level, the proposed project is included in 2016 RTP. Thus the cumulative impacts from the proposed project at the regional level have been accounted for under the program Initial Study/ Environmental Assessment Report of the RTP and the proposed project would not result in cumulative impacts at the regional level.

At the local level, the proposed project would improve the operational efficiency and safety of the studied intersections discussed in section 2.1.8. Thus, the build conditions would provide an improvement in delay times at intersections analyzed versus the no-build conditions. Because the proposed project would have a beneficial impact on traffic, adverse cumulative impacts are not anticipated once the project is operational.

However, construction activities for one or more of the related projects in the area could result in temporary, localized, site-specific disruptions, including partial and/or complete street and lane closures and detours. If the activities occur at the same time, this could cumulatively increase response times for emergency vehicles during construction. Potential disruptions to emergency services could be avoided through implementation of minimization measure T-1 described in section 2.1.8. Further, the preparation of a TMP would take into consideration other projects in the area.

## **Cultural Resources**

### **RSA**

The RSA for cultural resources is the APE identified for the proposed project. The APE incorporates the maximum existing or proposed right-of-way and any area where ground may be disturbed by construction activities. Additionally, the APE incorporates parcels that may have potential visual and audible effects resulting from the proposed project.

### **Existing Condition within RSA**

There are several historical properties within the APE map which include: St. John's Episcopal Church, St. John's Parish Hall, Automobile Club of Southern California, St. Vincent de Paul Church, and the Stimson House.

### **Potential Direct and/or Indirect Impacts within RSA**

The proposed project would result in an adverse impact (visual intrusion) on one historical property (St. John's Episcopal Church) within the APE. The proposed project would not result in substantial adverse effects or significant impacts archaeological resources. With the incorporation of the following mitigation measures CR-1 through CR-4 impacts will be minimized.

**Mitigation CR-1:** Develop an interpretive program that summarizes the history of West Adams, including street signage that would be compatible with the My Figueroa Project, panels, exhibits, and/or educational materials, as appropriate to the historic property

**Mitigation CR-2:** Design and fabricate a mobile exhibit that summarizes the history of West Adams, including St. John's Episcopal Church, that could be used by the City of Los Angeles for display at appropriate citizen meetings associated with the City's upcoming planning process for My Figueroa Project

**Mitigation CR-3:** Design and implement a historically sensitive and pedestrian friendly streetscape that includes landscaping and lighting that embraces the unique West Adams community and reflects the goals of the My Figueroa Project

**Mitigation CR-4:** Prepare a Historic Structures Report/Preservation Plan to guide future preservation of the St. John's Episcopal Church

Construction activities associated with the proposed project and nearby projects could unearth unanticipated cultural resources and result in an adverse cumulative impact. Avoidance measure CR-5 will ensure that any cumulative impacts, should they occur, are minimized.

**Avoidance CR-5:** If cultural materials are discovered during construction, all earth-moving activity within and around the immediate discovery area will be diverted until a qualified archaeologist can assess the nature and significance of the find. If human remains are discovered, State Health and Safety Code Section 7050.5 states that further disturbances and activities shall stop in any area or nearby area suspected to overlie remains, and the County Coroner contacted. Pursuant to California Public Resources Code (PRC) Section 5097.98, if the remains are thought to be Native American, the coroner will notify the Native American Heritage Commission (NAHC), which will then notify the Most Likely Descendent (MLD). At this time, the person who discovered the remains will contact Kelly Ewing Toledo, Senior Environmental Planner Cultural Resources Branch, so that they may work with the MLD on the respectful treatment and disposition of the remains. Further provisions of PRC 5097.98 are to be followed as applicable.

Construction impacts on cultural resources may include a temporary increase to noise levels during the construction period on surrounding historical properties, but will be minimized by implementing avoidance measures N-1, minimization measures N-2 through N-4, and GV-1. Potential traffic circulation issues during construction will be minimized with the implementation of minimization measure T-1. Potential increase in dirt, and dust from construction materials will be minimized by incorporating minimization measures WQ-1 through WQ-8, and minimization measures AQ-1 through AQ-16.

**Avoidance N-1:** Equipment Noise Control will be applied to revising old equipment and designing new equipment to meet acceptable noise levels.

- Mufflers are very effective devices which reduce the noise emanating from the intake or exhaust of an engine, compressor, or pump. The fitting of effective mufflers on all new equipment and retrofitting of mufflers on existing equipment is necessary to yield an immediate noise reduction at all types of road construction sites
- Sealed and lubricated tracks for crawler mounted equipment will lessen the sound radiated from the track assembly resulting from metal to soil and metal to metal contact. Contractors, site engineers, and inspectors should ensure that the tracks are kept in excellent condition by periodic maintenance and lubrication
- Lowering exhaust pipe exit height closer to the ground can result in an off-site noise reduction. Barriers are more effective in attenuating noise when the noise source is closer to ground level
- General noise control technology can have substantially quieter construction equipment when manufacturers apply state-of-the-art technology to new equipment or repair old equipment to maintain original equipment noise levels

**Minimization N-2:** In-Use Noise Control where existing equipment is not permitted to produce noise levels in excess of specified limits.

Any equipment that produces noise levels less than the specified limits would not be affected. However, those exceeding the limit would be required to meet compliance by repair, retrofit, or replacement. New equipment with the latest noise sensitive components and noise control devices are generally quieter than older equipment, if properly maintained and inspected regularly. They should be repaired or replaced if necessary to maintain the in-use noise limit. All equipment applying the in use noise limit would achieve an immediate noise reduction if properly enforced.

**Minimization N-3:** Site Restrictions is an attempt to achieve noise reduction through modifying the time, place, or method of operation of a particular source. Site restrictions should be applied to achieve noise reduction through different methods, resulting in an immediate reduction of noise emitted to the community without requiring any modification to the source noise emissions. The methods include shielding with barriers for equipment and site, truck rerouting and traffic control, time scheduling, and equipment relocation. The effectiveness of each method depends on the type of construction involved and the site characteristics.

Shielding with barriers should be implemented at an early stage of a project to reduce construction equipment noise. The placement of barriers must be carefully considered to reduce limitation of site access. Barriers may be natural or man-made, such as excess land fill used as a temporary berm strategically placed to act as a barrier.

- Efficient rerouting of trucks and control of traffic activity on construction site will reduce noise due to vehicle idling, gear shifting and accelerating under load. Planning proper traffic control will result in efficient workflow and reduce noise levels. In addition, rerouting trucks does not reduce noise levels but transfers noise to other areas that are less sensitive to noise
- Time scheduling of activities should be implemented to minimize noise impact on exposed areas. Local activity patterns and surrounding land uses must be considered in establishing site curfews. However, limiting working hours can decrease productivity. Sequencing the use of equipment with relatively low noise levels versus with relatively high noise levels during noise sensitive periods is an effective noise control measure
- Equipment location should be as far from noise sensitive land use areas as possible. The contractor should substitute quieter equipment or use quieter construction processes at or near noise sensitive areas

**Minimization N-4:** Personal Training of operators and supervisors is needed to become more aware of the construction site noise problems.

Educating contractors and their employees to be sensitive to noise impact problems and noise control methods. This may be one of the most cost-effective ways to help operators and supervisors become more aware of the construction site noise problem and to implement the various methods of improving the conditions. A training program for equipment operators is recommended to instruct them in methods of operating their equipment to minimize environmental noise. Many training programs are presently given on the subject of job safety. This can be extended to include the impact due to noise and of abatement.

**Minimization GV-1:** As recommended in the Noise and Vibration Manual (September 2013), impact pile driving can be the most significant source of vibration at construction sites. The principal means of reducing vibration from impact pile driving are listed below. Some of these methods may not be appropriate in specific situations, but where they are practical; they can often be used to reduce vibration to an acceptable level.

- **Jetting:** Jetting is a pile driving aid in which a mixture of air and water is pumped through high-pressure nozzles to erode the soil adjacent to the pile to facilitate placement of the pile. Jetting can be used to bypass shallow, hard layers of soil that would generate high levels of vibration at or near the surface if an impact pile driver was used
- **Pre-drilling:** Pre-drilling a hole for a pile can be used to place the pile at or near its ultimate depth, thereby eliminating most or all impact driving.
- **Using cast-in-place or auger cast piles:** Using cast-in-place or auger cast piles eliminates impact driving and limits vibration generation to the small amount generated by drilling, which is negligible
- **Using non-displacement piles:** Use of non-displacement piles such as H piles may reduce vibration from impact pile driving because this type of pile achieves its capacity from end bearing rather than from large friction transfer along the pile shaft
- **Using pile cushioning:** With pile cushioning, a resilient material is placed between the driving hammer and the pile to increase the period of time over which the energy from the driver is imparted to the pile. Keeping fresh, resilient cushions in the system can reduce the vibration generated by as much as a factor of 2 (Woods 1997)
- **Scheduling for specific times to minimize disturbance at nearby vibration-sensitive sites:** Adverse effects can be avoided if pile driving is not scheduled for times at which vibration could disturb equipment or people. For example, if pile driving near a residential area can be scheduled during business hours on weekdays, many people will be at work and will therefore not be affected
- **Using alternative nonimpact drivers:** Several types of proprietary pile driving systems have been designed specifically to reduce impact induced vibration by using torque and down-pressure or hydraulic static loading. These methods would be expected to significantly reduce adverse vibration effects from pile placement. The applicability of these methods depends in part on the type of soil

**Minimization T-1:** A TMP will be implemented to minimize direct and cumulative construction impacts on the community. The TMP shall be developed in consultation with the Los Angeles Department of Transportation and the California Department of Transportation, and it shall be provided with the construction plan to the City of Los Angeles Police Department and the City of Los Angeles Fire Department prior to commencement of construction activities. The TMP shall include the following implementation plans:

**Public Information:** Provide project updates to affected residents and businesses, including the general public, via brochures and mailers, community meetings, and web site information.

**Motorist Information:** Provide project information using changeable message signs and ground-mounted signs.

## *I-110 Flyover Project*

**Incident Management:** Implement construction zone enhanced enforcement program, freeway service patrol, and California Highway Patrol traffic handling.

**Traffic Management during Construction:** Provide a traffic lane closure chart, detour routes, pedestrian routes, residential and commercial access routes, and temporary traffic signals during construction.

**Following Policies and Guidelines during Construction:** Construction activities would be conducted in accordance with Caltrans guidelines.

**Minimization WQ-1:** Storm drain inlet protection will be deployed throughout the project and the roadway should be swept regularly to minimize dirt and dust.

**Minimization WQ-2:** Concrete wastes will be managed through the use of concrete washout facilities.

**Minimization WQ-3:** Temporary silt fence shall be utilized to protect existing vegetation. Location of the temporary fencing shall be shown on the project plans.

**Minimization WQ-4:** Various waste management, materials handling, and other housekeeping BMPs will be used throughout the duration of the project.

**Minimization WQ-5:** Construction sequencing will be scheduled to minimize storm water quality impacts.

**Minimization WQ-6:** A Water Pollution Control Plan will be prepared, and implemented during the construction stage.

**Minimization WQ-7:** Comply with the provisions of the National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Order No. 2009-0009-DWQ, NPDES No. CAS000002) (i.e. Construction General Permit).

**Minimization WQ-8:** Comply with the provisions identified in the NPDES Statewide Storm Water Permit Waste Discharge Requirements for the State of California, Department of Transportation (Order No. 2012-0011-DWQ, NPDES No. CAS000003).

**Minimization AQ-1:** Compliance with Caltrans' Standard Specifications in Section 14 (2010) will be required.

**Minimization AQ-2:** Section 14-9.01 specifically requires compliance with all applicable laws and regulations related to air quality, including SCAQMD rules and regulations and local ordinances.

**Minimization AQ-3:** Section 14-9.02 is directed at controlling dust. If dust palliative materials other than water are to be used, material specifications are contained in Section 18.

**Minimization AQ-4:** Apply water or dust palliative to the site and equipment as frequently as necessary to control fugitive dust emissions. Fugitive emissions generally must meet a “no visible dust” criterion either at the point of emission or at the right of way line as required by the SCAQMD.

**Minimization AQ-5:** Spread soil binder on any unpaved roads used for construction purposes, and all project construction parking areas.

**Minimization AQ-6:** Wash off trucks as they leave the R/W as necessary to control fugitive dust emissions.

**Minimization AQ-7:** Properly tune and maintain construction equipment and vehicles. Use low-sulfur fuel in all construction equipment as provided in California Code of Regulations Title 17, Section 93114.

**Minimization AQ-8:** Develop a dust control plan documenting sprinkling, temporary paving, speed limits, and expedited re-vegetation of disturbed slopes as needed to minimize construction impacts to existing communities.

**Minimization AQ-9:** Locate equipment and materials storage sites at least 500 feet from the sensitive receptors. Keep construction areas clean and orderly.

**Minimization AQ-10:** Establish environmentally sensitive areas (ESAs) or their equivalent at least 500 feet away from sensitive air receptors within which construction activities such as extended idling, material storage, and equipment maintenance, would be prohibited, to the extent feasible.

**Minimization AQ-11:** Use track-out reduction measures such as gravel pads at project access points to minimize dust and mud deposits on roads affected by construction traffic.

**Minimization AQ-12:** Cover all transported loads of soils and wet materials prior to transport, or provide adequate freeboard (space from the top of the material to the top of the truck) to minimize emission of dust (particulate matter) during transportation.

**Minimization AQ-13:** Promptly and regularly remove dust and mud that are deposited on paved, public roads due to construction activity and traffic to decrease particulate matter.

**Avoidance AQ-14:** Route and schedule construction traffic to avoid peak travel times as much as possible, to reduce congestion and related air quality impacts caused by idling vehicles along local roads.

**Minimization AQ-15:** Install mulch or plant vegetation as soon as practical after grading to reduce windblown particulates in the area. Be aware that certain methods of mulch placement, such as straw blowing, may themselves cause dust and visible emission issues, and may need to use controls such as dampened straw.



**Avoidance AQ-16:** While unlikely, if naturally occurring asbestos, serpentine, or ultramafic rock is discovered during grading operations Section 93105, Title 17 of the California Code of Regulations requires notification to the SCAQMD by the next business day and implementation of the following measures within 24 hours:

- Unpaved areas subject to vehicle traffic must be stabilized by being kept adequately wetted, treated with a chemical dust suppressant, or covered with material that contains less than 0.25 percent asbestos
- The speed of any vehicles and equipment traveling across unpaved areas must be no more than fifteen (15) miles per hour unless the road surface and surrounding area is sufficiently stabilized to prevent vehicles and equipment traveling more than 15 miles per hour from emitting dust that is visible crossing the project boundaries
- Storage piles and disturbed areas not subject to vehicular traffic must be stabilized by being kept adequately wetted, treated with a chemical dust suppressant, or covered with material that contains less than 0.25 percent asbestos
- Activities must be conducted so that no track-out from any road construction project is visible on any paved roadway open to the public

### **Cumulative Impact Potential**

Impacts on historical resources tend to be site specific and are assessed on a site-by-site basis. Where resources exist, implementation of cumulative development in the region would represent an incremental adverse impact to historical resources. Given the location of the projects listed in Table 33, cultural resources in close proximity could be adversely affected. Implementation of cumulative development could represent an incremental adverse impact on historic resources. Each related project will be required to comply with the requirements of applicable State and Federal laws to assure that potential impacts are minimized to the fullest extent possible.

The proposed project would result in an adverse impact on two historical property (St. John's Episcopal Church and St. John's Parish Hall) within the APE, but with the incorporation the proper mitigation measures this impact is less than significant CR-1 through CR-4, and avoidance measure CR-5. Potential construction impacts would be minimized with the incorporation of avoidance measure N-1, minimization measures N-2 through N-4, GV-1, T-1, WQ-1 through WQ-8, and AQ-1 through AQ-16.

Nearby projects would implement similar mitigation measures to minimize impacts on cultural resources. Thus, cumulative impacts from the proposed project would not be substantially adverse. Therefore, the contribution of the project on impacts to cultural resources in the area would not be cumulatively considerable.

## **Water Quality and Storm Water Runoff**

### **RSA**

The RSA for water quality and storm water runoff is the watershed.

### **Existing Condition within RSA**

The Los Angeles Regional Water Quality Control Board Region 4 (LARWQCB) has jurisdiction within the project limits. The nearest water bodies are the Ballona Creek and the Los Angeles River Reach 2 (Carson to Figueroa Street). The following are pollutants of concern in both water bodies: coliform bacteria, oil, ammonia, copper, lead, nutrients (algae), trash cadmium (sediment), cyanide, toxicity, viruses (enteric) selenium, and zinc. The project limits are within the Ballona Creek Watershed and the hydrologic area is interior Santa Monica Bay, Hydrologic Sub Area is Wilshire.

### **Potential Direct and/or Indirect Impacts within RSA**

Excessive stream and channel erosion may occur if runoff volumes and rates increase as a result of construction activities. Standard Caltrans BMPs, as listed in the Statewide Storm water Quality Practice Guidelines and minimization measure WQ-1 through WQ-6, would be incorporated to reduce and avoid water quality impacts. In addition, the project may result in moderate alterations to the surrounding surface drainage conditions. The BMPs required under the SWPPP would be implemented to prevent soil erosion and the discharge of other construction related pollutants that could contaminate nearby water resources. By incorporating accepted engineering practices and BMPs, impacts on the water quality of surface or ground waters during construction or operation would be minimized.

**Minimization WQ-1:** Storm drain inlet protection will be deployed throughout the project and the roadway should be swept regularly to minimize dirt and dust.

**Minimization WQ-2:** Concrete wastes will be managed through the use of concrete washout facilities.

**Minimization WQ-3:** Temporary silt fence shall be utilized to protect existing vegetation. Location of the temporary fencing shall be shown on the project plans.

**Minimization WQ-4:** Various waste management, materials handling, and other housekeeping BMPs will be used throughout the duration of the project.

**Minimization WQ-5:** Construction sequencing will be scheduled to minimize storm water quality impacts.

**Minimization WQ-6:** A Water Pollution Control Plan will be prepared, and implemented during the construction stage.

**Minimization WQ-7:** Comply with the provisions of the National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Order No. 2009-0009-DWQ, NPDES No. CAS000002) (i.e. Construction General Permit).

**Minimization WQ-8:** Comply with the provisions identified in the NPDES Statewide Storm Water Permit Waste Discharge Requirements for the State of California, Department of Transportation (Order No. 2012-0011-DWQ, NPDES No. CAS000003).

**Cumulative Impact Potential**

The proposed project and other nearby projects would comply with BMPs and accepted engineering practices; therefore, the potential for the project to contribute to any cumulatively considerable impacts would be low.

## **Geology, Soils, Seismicity, and Topography**

### **RSA**

The RSA for geology and soils includes the project study area. Although, for seismicity, the entire fault zone is the RSA.

### **Existing Condition within RSA**

The area within the project limits have been mapped as surficial sediments consisting mainly of alluvial gravel, sand and clay deposits with some cobbles. The inter-bedded sand and gravel layers generally range from dense to very dense. The project is located in a seismically active area and the Puente Hills Blind Thrust System is the closest to the site with a Maximum Magnitude of 7.3 along this fault system. Deterministic site parameters obtained using the EQFAULT-Version 3.0 (T. Blake, 2004) computer program for the deterministic prediction of peak acceleration from digitized California Fault System indicates that the Maximum Earthquake Magnitude (Mw) expected at the site could be of 7.1. There are no known earthquake faults crossing the project.

### **Potential Direct and/or Indirect Impacts within RSA**

It was found that the potential for ground rupture is non-existing to very low at the site. In addition, based on a regional study conducted by the U.S. Geological Survey (1985), the relative liquefaction susceptibility along these project limits is considered to be low to very low. A 1999 Seismic Hazard Map - Hollywood Quadrangle issued by the Department of Conservation California Geological Survey shows that there is not a potential for liquefaction within the project limits.

Groundwater may be impacted by the construction of this project this will be determined during the PS&E Stage of this project. Groundwater may be impacted depending on the depth of the bents, but with the incorporation in GT-1 impacts will be minimized which is described below:

**Minimization GT-1:** If the build alternative is selected, a site-specific geotechnical investigation shall be conducted prior to the detailed design phase. This investigation will determine the depth of the existing groundwater and provide recommendations for avoidance, minimization, and/or mitigation measures, if any, as appropriate.

Some construction activities could expose soils to temporary erosion; however, this temporary erosion could be reduced by implementing National Pollutant Discharge Elimination System Permit and BMPs during project construction.

### **Cumulative Impact Potential**

Any potential geologic hazards associated with the Project are site-specific and would not represent a cumulative impact. Implementation of the Project and other projects nearby projects listed in Table 33 would cumulatively increase the number of structures and people exposed to geologic- and seismic-related hazards. Caltrans seismic design criteria and other applicable guidelines will be followed. As long as Project design and construction is consistent with proper engineering practices and meets all laws and regulations applicable to the project, then seismic and regional geologic hazards would not be considered cumulatively considerable and would be minimized.

## Hazardous Waste and Materials

### RSA

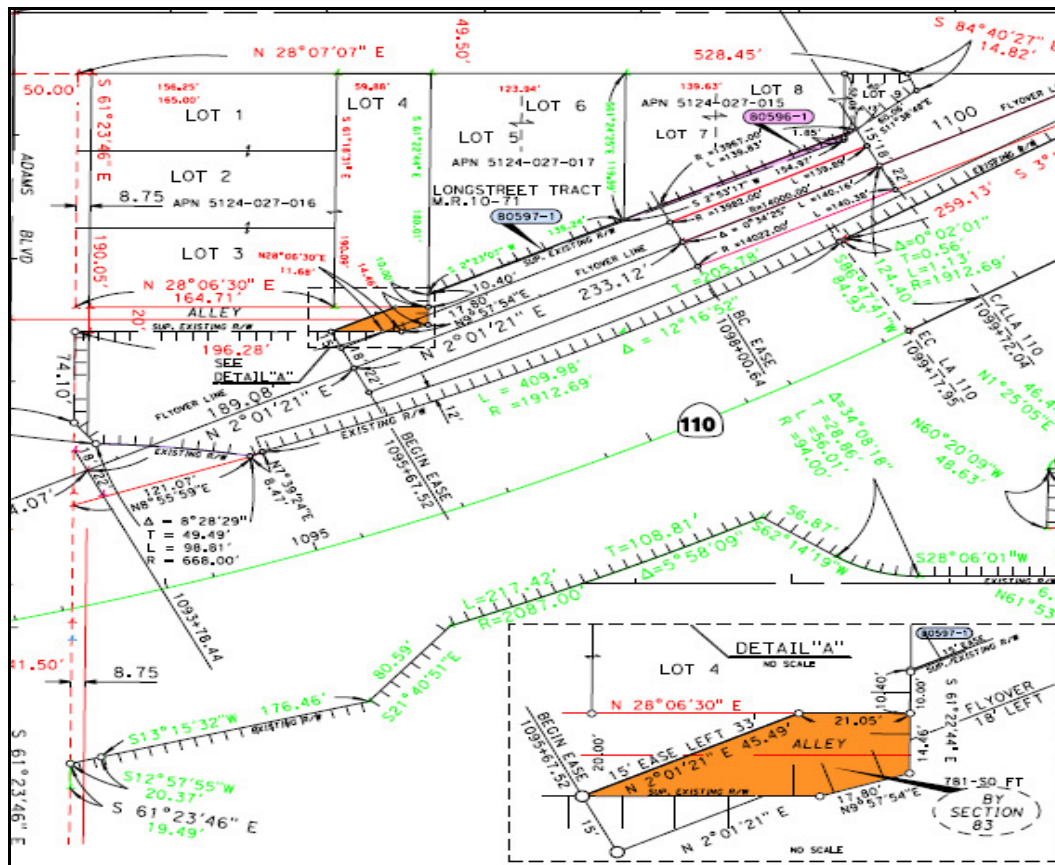
The RSA for hazardous waste and materials is the “subject property” area, which are the parcels that may require partial or full right-of-way acquisitions, and potential temporary easements the alley highlighted in orange in Figure 43 within the project study area.

According to Caltrans Right of Way Division and Caltrans Design, approximately 3 feet will be needed from two parcels to ensure sufficient space for maintenance, ingress/egress, access control, and setback purposes as well as emergency services access. The two parcels are businesses in a strip mall near the proposed project. Businesses will not be impacted by the acquisition of approximately a 3 foot sliver from the back of the properties. Therefore, the following parcels will be acquired for the proposed Build Alternative:

- Parcel # 80596-1 (APN #5124-027-015)
- Parcel # 80597-1 (APN #5124-027-017)

No relocations are anticipated as a result of the proposed Build Alternative. With the incorporation of minimization measure HW-6, potential impacts will be minimized.

**Figure 43: Parcels and Potential Temporary Easements Map**



Source: Caltrans Right of Way Map (2014)

### **Existing Condition within RSA**

One reported Leaking Underground Storage Tank (LUST) site, Mobile located at 2620 Figueroa St. This facility reported groundwater contamination with gasoline. The Responsible Party (RP) stated their investigation and quarterly monitoring program since January 2003 and subsequently received a Closure/No Further Action (NFA) letter issued by the Los Angeles Regional Water Quality Control Board on September 16, 2006.

### **Potential Direct and/or Indirect Impacts within RSA**

A Phase I ESA will be required for the required parcels. The purpose of the ESA is to recognize environmental conditions in connection with the parcels. A subsequent Phase II Site Investigation will also be required to evaluate and determine the extent/degree of contaminations on the parcels prior to acquisition. With implementation of a soil mitigation plan, an aerially deposited lead survey, and an inspection of properties to be acquired per Department of Toxic Substances Control requirements, and minimization measures HW-1 through HW-7 (described below) any potential impacts would be minimized.

**Minimization HW-1:** An Asbestos Containing Material (ACM) Survey will be performed by a certified Asbestos Consultant (CAC) and Certified Lead Inspector (CLI). This allow the contractor to apply for a National Emission Standards for Hazardous Air Pollutants (NESHAP) notification/permit with South Coast Air Quality Management (SCAQMD) prior to bridge demolition work.

**Minimization HW-2:** The development of a project-specific Lead Compliance Plan (LCP) and training program to ensure proper health and safety measures are implemented and complied prior to start of the removal operation will be required. Per Caltrans Standard Special Provisions (SSPs) a project-specific Lead Compliance Plan will be required prior to the minor soil disturbance, major soil disturbance (requires LCP and Excavation and Transportation Plan (ETP), removal of existing Yellow/White Thermoplastic Traffic Stripe and pavement marking (requires LCP and Debris Removal, Containment, and Disposal Work Plan), and non-aerially deposited lead soil disturbance (requires a Health and Safety Plan (HaSP) and a Hazardous Material/Waste Management Plan (HMP) at the project site.

**Minimization HW-3:** A TWW disposal health and safety plan will be prepared.

**Minimization HW-4:** A Debris Containment and Disposal Work Plan will be prepared.

**Minimization HW-5:** Removal of yellow/white thermoplastic traffic stripes and pavement marking material shall be properly collected, stored, transported, and disposed of in accordance with State and Federal guidelines.

**Minimization HW-6:** If the proposed Build Alternative is selected, then a Phase I Environmental Site Assessment (ESA) and a Phase II Site Investigation (SI) will be prepared. The Phase II Site Investigation will be performed on existing corridor and new parcels to be acquired for the project. The purpose of the ESA is to recognize environmental conditions in connection with the parcels. The Phase II Site Investigation will evaluate and determine the extent/degree of contaminations on the Parcels prior to acquisition. The objective of the Site Investigation is to characterize/evaluate both soil and groundwater condition.

**Avoidance HW-7:** A comprehensive ADL site investigation will be performed in Plans Specifications and Estimates phase of the project in order to evaluate the extent of ADL contamination and to assist in evaluation of applicable ADL soil management during construction.

### **Cumulative Impact Potential**

The project in combination with the related projects identified in Table 33, has the potential to increase the use, storage, transport, and/or accidental release of hazardous materials during construction and operation. Specifically, any related projects that are either located on listed hazardous materials site, involve demolition of structure that may contain hazardous materials, or propose the use of hazardous materials in their operation could potentially combine with the impacts of the Project. Each of the related projects would require evaluation for potential threats to public safety related to hazards and hazardous materials. Hazardous materials and risk of upset conditions tend to be site specific. Further, the applicants for each of the related projects would be required to follow Local, State, and Federal laws regarding hazardous materials and other hazards. In general prior to the start of construction, all necessary investigations would be conducted, and remediation would be undertaken if contaminated soil or material are found. The potential impacts of the project would be minimized with the incorporation of HW-1 through HW-7; therefore, cumulative impacts would be minimized. Consequently, cumulative impacts are not anticipated.

## **Air Quality**

### **RSA**

The proposed project is located in the South Coast Air Basin (Basin). The Basin is the appropriate RSA for evaluating cumulative impacts at a regional level. For localized construction effects, the project study area is considered the RSA.

### **Existing Condition within RSA**

In the Basin, high concentrations of ozone are normally recorded during the late spring and summer months, when more intense sunlight drives enhanced photochemical reactions. In contrast, higher concentrations of carbon monoxide are generally recorded in late fall and winter, when nighttime radiation inversions trap the emissions at the surface. High Inhalable Particulate Matter (PM<sub>10</sub>) and (PM<sub>2.5</sub>) concentrations can occur throughout the year, but occur most frequently in fall and winter in the Basin.

### **Potential Direct and/or Indirect Impacts within RSA**

During construction, the proposed project would be subject to SCAQMD Rule 403 (Fugitive Dust), which requires best available fugitive dust control measures to be incorporated into construction practices. Construction impacts of the proposed project were found to be less than significant. The proposed project would not result in adverse operational emissions impacts when compared with the future no-build conditions. Rather, implementation of the proposed project would reduce pollution levels and result in a regional air quality benefit.

### **Cumulative Impact Potential**

Since none of the projects listed in Table 33 within the project study area would be constructed at the same time as the proposed project, there would be no localized cumulative construction impacts. Additionally, for region-wide emissions, SCAQMD strategies and compliance with SCAQMD rules would mitigate the cumulative air quality impacts of the proposed project and other related projects and development in the Basin. The proposed project would not result in substantially adverse cumulative air quality impacts.



## **Noise and Vibration**

### **RSA**

The RSA for noise and vibration is defined as the project study area which includes surrounding properties along the alignment that may be affected by noise during construction and operation of the project.

### **Existing Condition within RSA**

The existing ambient noise levels measured were between 63 and 67 decibels. Refer to Table 32 for a summary of short term noise measurements, which shows the highest noise reading at R5 (2315 Flower St.) at 67.3 dBA and the lowest noise reading at R2 (2916 S. Hope St.) at 62.5 dBA. Table 33 for a summary of background noise measurements which is less than 55 dBA for both locations, and Table 34 for a summary of long term measurements at I-110 Figueroa St. Overcrossing which was 71.3 dBA for a 24- hour duration.

### **Potential Direct and/or Indirect Impacts within RSA**

The proposed project would not result in significant noise impacts or adverse effects. Construction would be conducted in accordance with Caltrans' Standard Specifications, and applicable local noise standards. After construction noise levels will be similar to the existing with a slight increase at a few locations (refer to section 2.2.5 Noise and Vibration in this document). Vibration impacts are not anticipated as a result of the proposed Build Alternative due to the distance of the construction site and sensitive receptors, and with the incorporation of GV-1 minimization measure will ensure that sensitive receptors are not impacted by ground vibration as a result of the proposed project.

### **Cumulative Impact Potential**

Cumulative noise impacts would occur as a result of potential additional construction activity taking place within the Project Study Area, as well as increased vehicle traffic generated by cumulative development. After construction, noise levels would result in a slight increase in a few locations (see section 2.2.5 Noise and Vibration of this document) from the existing noise levels, but this increase would not be substantially adverse. Construction activities for the proposed project and projects listed in Table 33 would be carried out in accordance with municipal codes and Caltrans guidelines, where applicable, thereby ensuring that noise impacts from construction activities would not be significant. Thus, there would not be a substantially adverse or significant cumulative impact.

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## **Climate Change**

Climate change refers to long-term changes in temperature, precipitation, wind patterns, and other elements of the earth's climate system. An ever-increasing body of scientific research attributes these climatological changes to greenhouse gas (GHG) emissions, particularly those generated from the production and use of fossil fuels.

While climate change has been a concern for several decades, the establishment of the Intergovernmental Panel on Climate Change (IPCC) by the United Nations and World Meteorological Organization in 1988 has led to increased efforts devoted to GHG emissions reduction and climate change research and policy. These efforts are primarily concerned with the emissions of GHGs generated by human activity including carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), tetrafluoromethane, hexafluoroethane, sulfur hexafluoride (SF<sub>6</sub>), HFC-23 (fluoroform), HFC-134a (s, s, s, 2-tetrafluoroethane), and HFC-152a (difluoroethane).

In the U.S., the main source of GHG emissions is electricity generation, followed by transportation. In California, however, transportation sources (including passenger cars, light-duty trucks, other trucks, buses, and motorcycles make up the largest source of GHG-emitting sources. The dominant GHG emitted is CO<sub>2</sub>, mostly from fossil fuel combustion.

There are typically two terms used when discussing the impacts of climate change: "Greenhouse Gas Mitigation" and "Adaptation." "Greenhouse Gas Mitigation" is a term for reducing GHG emissions to reduce or "mitigate" the impacts of climate change. "Adaptation" refers to the effort of planning for and adapting to impacts resulting from climate change (such as adjusting transportation design standards to withstand more intense storms and higher sea levels).

There are four primary strategies for reducing GHG emissions from transportation sources: 1) improving the transportation system and operational efficiencies, 2) reducing travel activity, 3) transitioning to lower GHG-emitting fuels, and 4) improving vehicle technologies/efficiency. To be most effective, all four strategies should be pursued cooperatively.

## **Regulatory Setting**

### **State**

With the passage of several pieces of legislation including State Senate and Assembly bills and Executive Orders, California launched an innovative and proactive approach to dealing with GHG emissions and climate change.

Assembly Bill 1493 (AB 1493), Pavley, Vehicular Emissions: Greenhouse Gases, 2002: This bill requires the California Air Resources Board (ARB) to develop and implement regulations to reduce automobile and light truck GHG emissions. These stricter emissions standards were designed to apply to automobiles and light trucks beginning with the 2009-model year.

Executive Order (EO) S-3-05 (June 1, 2005): The goal of this EO is to reduce California's GHG emissions to 1) year 2000 levels by 2010, 2) year 1990 levels by 2020, and 3) 80 percent below the year 1990 levels by 2050. In 2006, this goal was further reinforced with the passage of Assembly Bill 32.

Assembly Bill 32 (AB 32), Núñez and Pavley, The Global Warming Solutions Act of 2006: AB 32 sets the same overall GHG emissions reduction goals as outlined in EO S-3-05, while further mandating that ARB create a scoping plan and implement rules to achieve "real, quantifiable, cost-effective reductions of greenhouse gases."

Executive Order S-20-06 (October 18, 2006): This order establishes the responsibilities and roles of the Secretary of the California Environmental Protection Agency (Cal/EPA) and state agencies with regard to climate change.

Executive Order S-01-07 (January 18, 2007): This order set forth the low carbon fuel standard for California. Under this EO, the carbon intensity of California's transportation fuels is to be reduced by at least 10 percent by 2020.

Senate Bill 97 (SB 97) Chapter 185, 2007, Greenhouse Gas Emissions: This bill required the Governor's Office of Planning and Research (OPR) to develop recommended amendments to the California Environmental Quality Act (CEQA) Guidelines for addressing GHG emissions. The amendments became effective on March 18, 2010.

Senate Bill 375 (SB 375), Chapter 728, 2008, Sustainable Communities and Climate Protection: This bill requires the California Air Resources Board (CARB) to set regional emissions reduction targets from passenger vehicles. The Metropolitan Planning Organization (MPO) for each region must then develop a "Sustainable Communities Strategy" (SCS) that integrates transportation, land-use, and housing policies to plan for the achievement of the emissions target for their region.

Senate Bill 391 (SB 391) Chapter 585, 2009 California Transportation Plan: This bill requires the State's long-range transportation plan to meet California's climate change goals under AB 32.

## **Federal**

Although climate change and GHG reduction are a concern at the federal level, currently no regulations or legislation have been enacted specifically addressing GHG emissions reductions and climate change at the project level. Neither the United States Environmental Protection Agency (U.S. EPA) nor the Federal Highway Administration (FHWA) has issued explicit guidance or methods to conduct project-level GHG analysis.<sup>3</sup> FHWA supports the approach that climate change considerations should be integrated throughout the transportation decision-making process—from planning through project development and delivery. Addressing climate change mitigation and adaptation up front in the planning process will assist in decision-making and improve efficiency at the program level, and will inform the analysis and stewardship needs of project-level decision-making. Climate change considerations can be integrated into many planning factors, such as supporting economic vitality and global efficiency, increasing safety and mobility, enhancing the environment, promoting energy conservation, and improving the quality of life.

The four strategies outlined by FHWA to lessen climate change impacts correlate with efforts that the state is undertaking to deal with transportation and climate change; these strategies include improved transportation system efficiency, cleaner fuels, cleaner vehicles, and a reduction in travel activity.

Climate change and its associated effects are also being addressed through various efforts at the federal level to improve fuel economy and energy efficiency, such as the “National Clean Car Program” and EO 13514 - *Federal Leadership in Environmental, Energy and Economic Performance*.

Executive Order 13514 (October 5, 2009): This order is focused on reducing greenhouse gases internally in federal agency missions, programs and operations, but also directs federal agencies to participate in the Interagency Climate Change Adaptation Task Force, which is engaged in developing a national strategy for adaptation to climate change.

U.S. EPA’s authority to regulate GHG emissions stems from the U.S. Supreme Court decision in *Massachusetts v. EPA* (2007). The Supreme Court ruled that GHGs meet the definition of air pollutants under the existing Clean Air Act and must be regulated if these gases could be reasonably anticipated to endanger public health or welfare. Responding to the Court’s ruling, U.S. EPA finalized an endangerment finding in December 2009. Based on scientific evidence it found that six greenhouse gases constitute a threat to public health and welfare. Thus, it is the Supreme Court’s interpretation of the existing Act and EPA’s assessment of the scientific evidence that form the basis for EPA’s regulatory actions. U.S. EPA in conjunction with NHTSA issued the first of a series of GHG emission standards for new cars and light-duty vehicles in April 2010.<sup>4</sup>

The U.S. EPA and the National Highway Traffic Safety Administration (NHTSA) are taking coordinated steps to enable the production of a new generation of clean vehicles with reduced GHG emissions and improved fuel efficiency from on-road vehicles and engines. These next steps include

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<sup>3</sup> To date, no national standards have been established regarding mobile source GHGs, nor has U.S. EPA established any ambient standards, criteria or thresholds for GHGs resulting from mobile sources.

<sup>4</sup> <http://www.c2es.org/federal/executive/epa/greenhouse-gas-regulation-faq>

developing the first-ever GHG regulations for heavy-duty engines and vehicles, as well as additional light-duty vehicle GHG regulations.

The final combined standards that made up the first phase of this national program apply to passenger cars, light-duty trucks, and medium-duty passenger vehicles, covering model years 2012 through 2016. The standards implemented by this program are expected to reduce GHG emissions by an estimated 960 million metric tons and 1.8 billion barrels of oil over the lifetime of the vehicles sold under the program (model years 2012-2016).

On August 28, 2012, U.S. EPA and NHTSA issued a joint Final Rulemaking to extend the National Program for fuel economy standards to model year 2017 through 2025 passenger vehicles. Over the lifetime of the model year 2017-2025 standards this program is projected to save approximately four billion barrels of oil and two billion metric tons of GHG emissions.

The complementary U.S. EPA and NHTSA standards that make up the Heavy-Duty National Program apply to combination tractors (semi-trucks), heavy-duty pickup trucks and vans, and vocational vehicles (including buses and refuse or utility trucks). Together, these standards will cut greenhouse gas emissions and domestic oil use significantly. This program responds to President Barack Obama's 2010 request to jointly establish greenhouse gas emissions and fuel efficiency standards for the medium- and heavy-duty highway vehicle sector. The agencies estimate that the combined standards will reduce CO<sub>2</sub> emissions by about 270 million metric tons and save about 530 million barrels of oil over the life of model year 2014 to 2018 heavy duty vehicles.

## **Project Analysis**

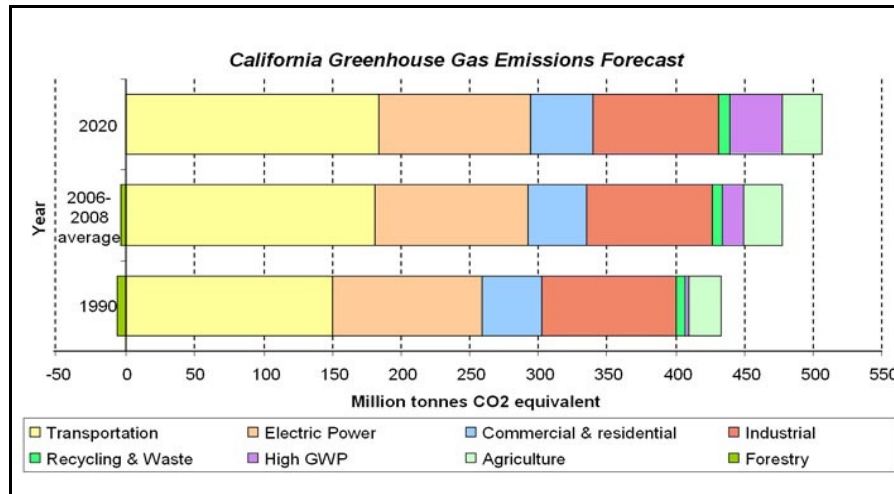
An individual project does not generate enough GHG emissions to significantly influence global climate change. Rather, global climate change is a cumulative impact. This means that a project may contribute to a potential impact through its *incremental* change in emissions when combined with the contributions of all other sources of GHG.<sup>5</sup> In assessing cumulative impacts, it must be determined if a project's incremental effect is "cumulatively considerable" (CEQA Guidelines Sections 15064(h)(1) and 15130). To make this determination, the incremental impacts of the project must be compared with the effects of past, current, and probable future projects. To gather sufficient information on a global scale of all past, current, and future projects to make this determination is a difficult, if not impossible, task.

The AB 32 Scoping Plan mandated by AB 32 includes the main strategies California will use to reduce GHG emissions. As part of its supporting documentation for the Draft Scoping Plan, the ARB released the GHG inventory for California (forecast last updated: October 28, 2010). The forecast is an estimate of the emissions expected to occur in 2020 if none of the foreseeable measures included in the Scoping Plan were implemented. The base year used for forecasting emissions is the average of statewide emissions in the GHG inventory for 2006, 2007, and 2008. Please see Figure 44 for California Greenhouse Gas Forecasts which shows transportation being the biggest contributor to Greenhouse Gas emissions.

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<sup>5</sup> This approach is supported by the AEP: *Recommendations by the Association of Environmental Professionals on How to Analyze GHG Emissions and Global Climate Change in CEQA Documents* (March 5, 2007), as well as the South Coast Air Quality Management District (Chapter 6: The CEQA Guide, April 2011) and the U.S. Forest Service (Climate Change Considerations in Project Level NEPA Analysis, July 13, 2009).

**Figure 44: California Greenhouse Gas Forecast**



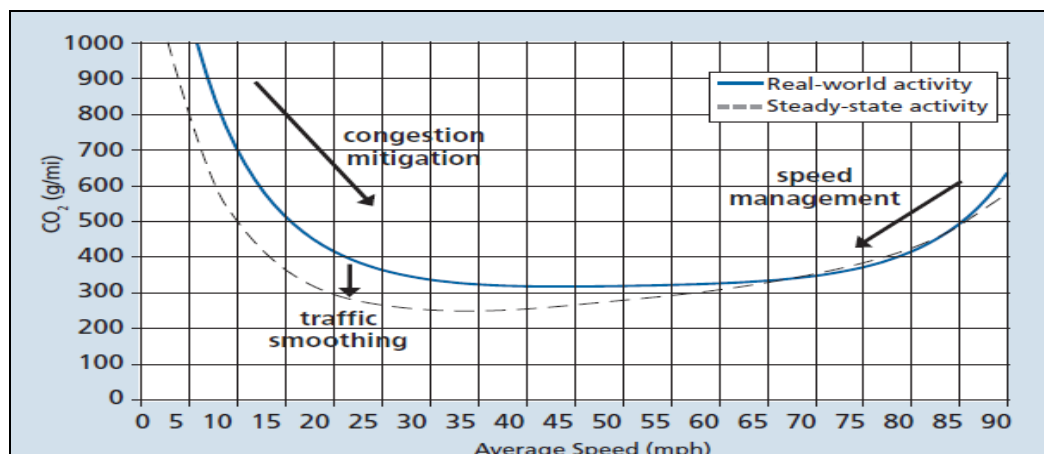
Source: <http://www.arb.ca.gov/cc/inventory/data/forecast.htm>

The Department and its parent agency, the Transportation Agency, have taken an active role in addressing GHG emission reduction and climate change. Recognizing that 98 percent of California's GHG emissions are from the burning of fossil fuels and 40 percent of all human made GHG emissions are from transportation, the Department has created and is implementing the Climate Action Program at Caltrans that was published in December 2006.<sup>6</sup>

One of the main strategies in the Department's Climate Action Program to reduce GHG emissions is to make California's transportation system more efficient. The highest levels of carbon dioxide (CO<sub>2</sub>) from mobile sources, such as automobiles, occur at stop-and-go speeds (0-25 miles per hour) and speeds over 55 miles per hour; the most severe emissions occur from 0-25 miles per hour (see Figure 45 below). To the extent that a project relieves congestion by enhancing operations and improving travel times in high congestion travel corridors GHG emissions, particularly CO<sub>2</sub>, may be reduced.

<sup>6</sup> Caltrans Climate Action Program is located at the following web address:  
[http://www.dot.ca.gov/hq/tpp/offices/ogm/key\\_reports\\_files/State\\_Wide\\_Strategy/Caltrans\\_Climate\\_Action\\_Program.pdf](http://www.dot.ca.gov/hq/tpp/offices/ogm/key_reports_files/State_Wide_Strategy/Caltrans_Climate_Action_Program.pdf)

**Figure 45: Possible Effect of Traffic Operation Strategies in Reducing on Road CO<sub>2</sub> Emissions**



Source: Air Quality Analysis Report (September 2015)

As shown in Table 34, emissions of CO<sub>2</sub>, and CO<sub>2</sub> (Pavley) for the Build Alternative result in increase in 2023 and 2040 when compared to the emissions for the No Build. The increase in GHG emissions over the No Build is likely due to the increase in traffic volumes in the Study Area with the construction of the new northbound I-110 HOT off-ramp at Figueroa St. Emissions for all future Build Alternatives increased when compared to the emissions in 2014. In general, projects that add capacity tend to have the highest potential of increasing GHG emissions. The proposed project, however, is anticipated to relieve congestion and improve traffic operations at the existing HOT off-ramp to Adams Blvd and at Figueroa St. and 23<sup>rd</sup> St. intersections.

**Table 34: Percent Changes in GHG Emissions**

TAC	2014	Opening Year 2023 (g/day)				Horizon Year 2040 (g/day)			
	Existing (g/day)	No-Build	Build	%Δ from Existing	%Δ from No-Build	No-Build	Build	%Δ from Existing	%Δ from No-Build
CO <sub>2</sub>	0.856	1.031	1.275	49%	24%	1.12	1.386	62%	24%
CO <sub>2</sub> (Pavley)	0.784	0.73	0.902	15%	24%	0.731	0.907	16%	24%

Source: Air Quality Analysis Report (September 2015)

The northbound I-110 HOT lane facility ends approximately one-half mile south of Downtown Los Angeles, leaving HOT lane users to continue the rest of the journey to Downtown on surface arterial streets. This results in queuing and delay of traffic in the HOT off-ramp to Adams Blvd as well as mixed flow mainline. The project includes adding a new HOT off-ramp to Figueroa Street, eliminating the queuing and thus improving the operation and safety in the HOT off-ramp to Adams Blvd as well as along the mainline HOT lanes. The proposed project is anticipated to improve intersection delays and level of service at the local arterials and at the terminus of the existing ramps. The objective of the proposed project is consistent with the strategies for reducing GHG emissions from transportation sources. Refer to the Traffic and Transportation section in this document Tables 18 through 21 for traffic data, which shows an overall improvement in the average delay time as a result of the proposed Build Alternative.



The purpose of the project is to improve critical weaving and merging movements to allow more efficient discharge of traffic load. The currently approved plans are the 2012 RTP and the 2013 Federal Transportation Improvement Program (FTIP). The 2012 RTP was adopted by SCAG on April 4, 2012; FHWA and FTA approved the 2012 RTP on June 4, 2012. The 2013 FTIP was federally approved on December 14, 2012. The most recent Amendment to the 2013 FTIP is No. 13-19, approved by FHWA and FTA on July 17, 2014.

The RTP/Sustainable Communities Strategy (SCS) includes a commitment to reduce emissions from all transportation sources in compliance with SB 375, improve public health, and meet air quality standards. Additional benefits of the RTP/SCS include reductions in GHG emissions within the air basin. A reduction of 9 percent by 2020 and 16 percent by 2035 is expected in the overall GHG emissions. When the proposed project is successfully amended into the upcoming RTP/SCS, it will become a part of the overall transportation network plan that is anticipated to achieve the expected GHG reductions.

As discussed earlier in the alternatives section, Transportation Demand Management (TDM) encourages public and private transit, ridesharing programs, and bicycle and pedestrian improvements as elements of a unified urban transportation system. TDM addresses traffic congestion by reducing travel demand rather than increasing transportation capacity and focuses on alternatives such as ride sharing, flextime, increased transit usage, walking, and bicycling. TDM focuses on regional strategies for reducing the number of vehicle trips and vehicle miles traveled and increasing vehicle occupancy. It facilitates higher vehicle occupancy or reduces traffic congestion by expanding the traveler's transportation choice. Because TDM strategies are currently employed in the project area and traffic congestion is still prevalent, TDM measures alone will not be adequate to meet the purpose of and need for the proposed project.

Multi-modal alternatives integrate multiple forms of transportation, such as pedestrian, bicycle, automobile, rail, and mass transit. Because a range of transportation options is currently available in the project area and traffic congestion is still prevalent, multi-modal alternatives alone will not be adequate to meet the purpose of and need for the proposed project.

### **Limitations and Uncertainties with Modeling**

The EMFAC Web Database provides a quick and easy way to access commonly used EMFAC emissions and emission rates data without having to install and run the EMFAC model.

Although EMFAC can calculate CO<sub>2</sub> emissions from mobile sources, the model does have limitations when it comes to accurately reflecting changes in CO<sub>2</sub> emissions due to impacts on traffic. According to the National Cooperative Highway Research Program report, *Development of a Comprehensive Modal Emission Model* (April 2008) and a 2009 University of California study,<sup>7</sup> brief but rapid accelerations, such as those occurring during congestion, can contribute significantly to a vehicle's CO<sub>2</sub> emissions during a typical urban trip. Current emission-factor models are insensitive to the distribution of such modal events (i.e., cruise, acceleration, deceleration, and idling) in the operation of a vehicle and instead estimate emissions by average trip speed. This

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7 Matthew Bartha, Kanok Boriboonsomsin. 2009. Energy and emissions impacts of a freeway-based dynamic eco-driving system. Transportation Research Part D: Transport and Environment Volume 14, Issue 6, August 2009, Pages 400–410

limitation creates an uncertainty in the model's results when compared to the estimated emissions of the various alternatives with baseline in an attempt to determine impacts. Although work by EPA and the California Air Resources Board (CARB) is underway on modal-emission models, neither agency has yet approved a modal emissions model that can be used to conduct this more accurate modeling.

CARB is currently not using EMFAC to create its inventory of greenhouse gas emissions. It is unclear why the CARB has made this decision. Their website only states:

Both the EMFAC and OFF-ROAD Models develop CO<sub>2</sub> and CH<sub>4</sub> [methane] emission estimates; however, they are not currently used as the basis for [CARB's] official [greenhouse gas] inventory which is based on fuel usage information. . . However, ARB is working towards reconciling the emission estimates from the fuel usage approach and the models.<sup>8</sup>

### **Other Variables**

With the current science, project-level analysis of greenhouse gas emissions has limitations. Although a greenhouse gas analysis is included for this project, there are numerous key greenhouse gas variables that are likely to change dramatically during the design life of the proposed project and would thus dramatically change the projected CO<sub>2</sub> emissions.

First, vehicle fuel economy is increasing. The EPA's annual report, "Light-Duty Automotive Technology and Fuel Economy Trends: 1975 through 2012,"<sup>9</sup> which provides data on the fuel economy and technology characteristics of new light-duty vehicles including cars, minivans, sport utility vehicles, and pickup trucks, confirms that average fuel economy has improved each year beginning in 2005, and is now at a record high. Corporate Average Fuel Economy (CAFE) standards remained the same between model years 1995 and 2003 and subsequently began setting increasingly higher fuel economy standards for future vehicle model years. The EPA estimates that light duty fuel economy rose by 16 percent from 2007 to 2012. Table 35 shows the increases in required fuel economy standards for cars and trucks between Model Years 2012 and 2025 as available from the National Highway Traffic Safety Administration for the 2012-2016 and 2017-2025 CAFE Standards.

**Table 35: Average Required Fuel Economy (mpg)**

	2012	2013	2014	2015	2016	2018	2020	2025
Passenger Cars	33.3	34.2	34.9	36.2	37.8	41.1-41.6	44.2-44.8	55.3-56.2
Light Trucks	25.4	26	26.6	27.5	28.8	29.6-30.0	30.6-31.2	39.3-40.3
Combined	29.7	30.5	31.3	32.6	34.1	36.1-36.5	38.3-38.9	48.7-49.7

Source: EPA 2013, <http://www.epa.gov/fueleconomy/fetrends/1975-2012/420r13001.pdf>

<sup>8</sup> <http://www.arb.ca.gov/msei/offroad.htm>

<sup>9</sup> <http://www.epa.gov/oms/fetrends.htm>

Second, near zero carbon vehicles will come into the market during the design life of this project. According to the 2013 Annual Energy Outlook (AEO2013): “LDVs that use diesel, other alternative fuels, hybrid-electric, or all-electric systems play a significant role in meeting more stringent GHG emissions and CAFE standards over the projection period. Sales of such vehicles increase from 20 percent of all new LDV sales in 2011 to 49 percent in 2040 in the AEO2013 Reference case.”<sup>10</sup>

The greater percentage of alternative fuel vehicles on the road in the future will reduce overall GHG emissions as compared to scenarios in which vehicle technologies and fuel efficiencies do not change.

Third, California has recently adopted a low-carbon transportation fuel standard in 2009 to reduce the carbon intensity of transportation fuels by 10 percent by 2020. The regulation became effective on January 12, 2010 (codified in title 17, California Code of Regulations, Sections 95480-95490). Beginning January 1, 2011, transportation fuel producers and importers must meet specified average carbon intensity requirements for fuel in each calendar year.

Lastly, driver behavior has been changing as the U.S. economy and oil prices have changed. In its January 2008 report, “Effects of Gasoline Prices on Driving Behavior and Vehicle Market,”<sup>11</sup> the Congressional Budget Office found the following results based on data collected from California: 1) freeway motorists adjust to higher gas prices by making fewer trips and driving more slowly; 2) the market share of sports utility vehicles is declining; and 3) the average prices for larger, less-fuel-efficient models declined from 2003 to 2008 as average prices for the most-fuel-efficient automobiles have risen, showing an increase in demand for the more fuel efficient vehicles. More recent reports from the Energy Information Agency<sup>12</sup> and Bureau of Economic Analysis<sup>13</sup> also show slowing re-growth of vehicle sales in the years since its dramatic drop in 2009 due to the Great Recession as gasoline prices continue to climb to \$4 per gallon and beyond.

### **Limitations and Uncertainties with Impact Assessment**

Taken from page 5-22 of the National Highway Traffic Safety Administration Final EIS for MY2017-2025 CAFE Standards (July 2012), Figure 46 illustrates how the range of uncertainties in assessing greenhouse gas impacts grows with each step of the analysis:

“Moss and Schneider (2000) characterize the ‘cascade of uncertainty’ in climate change simulations. As indicated in Figure 46, the emission estimates used in this EIS have narrower bands of uncertainty than the global climate effects, which are less uncertain than regional climate change effects. The effects on climate are, in turn, less uncertain than the impacts of climate change on affected resources (such as terrestrial and coastal ecosystems, human health, and other resources [...]) Although the uncertainty bands broaden with each successive step in the analytic chain, all values within the bands are not equally likely; the mid-range values have the highest likelihood.”<sup>14</sup>

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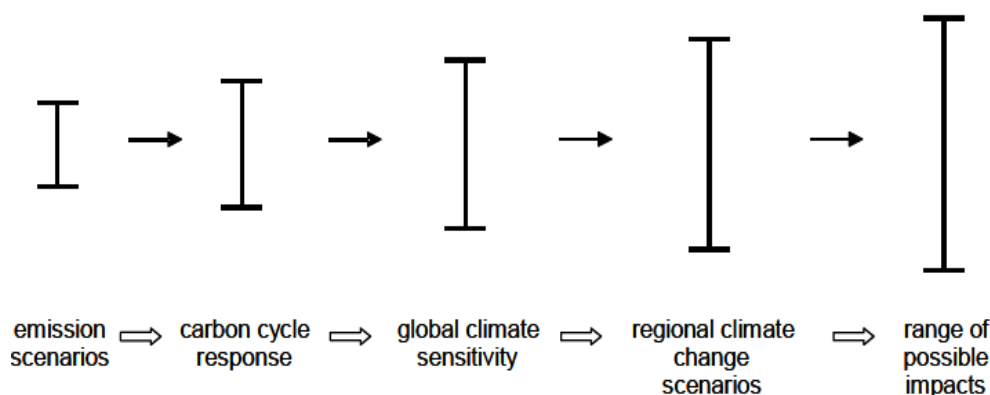
10 [http://www.eia.gov/forecasts/aeo/pdf/0383\(2013\).pdf](http://www.eia.gov/forecasts/aeo/pdf/0383(2013).pdf)

11 <http://www.cbo.gov/ftpdocs/88xx/doc8893/01-14-GasolinePrices.pdf>

12 [http://www.eia.gov/oiaf/aeo/tablebrowser/aeo\\_query\\_server/?event=ehExcel.getFile&study=AEO2013&region=0-0&cases=ref2013-d102312a&table=114-AEO2013&yearFilter=0](http://www.eia.gov/oiaf/aeo/tablebrowser/aeo_query_server/?event=ehExcel.getFile&study=AEO2013&region=0-0&cases=ref2013-d102312a&table=114-AEO2013&yearFilter=0)

13 Historical Vehicle Sales: [www.bea.gov/national/xls/gap\\_hist.xls](http://www.bea.gov/national/xls/gap_hist.xls)

14 [http://www.nhtsa.gov/staticfiles/rulemaking/pdf/cafe/FINAL\\_EIS.pdf](http://www.nhtsa.gov/staticfiles/rulemaking/pdf/cafe/FINAL_EIS.pdf), page 5-22

**Figure 46: Cascade of Uncertainties**

Source: National Highway Traffic Safety Administration

Much of the uncertainty in assessing an individual project's impact on climate change surrounds the global nature of the climate change. Even assuming that the target of meeting the 1990 levels of emissions is met, there is no regulatory or other framework in place that would allow for a ready assessment of what any modeled increase in CO<sub>2</sub> emissions would mean for climate change given the overall California greenhouse gas emissions inventory of approximately 430 million tons of CO<sub>2</sub> equivalent. This uncertainty only increases when viewed globally. The IPCC has created multiple scenarios to project potential future global greenhouse gas emissions as well as to evaluate potential changes in global temperature, other climate changes, and their effect on human and natural systems. These scenarios vary in terms of the type of economic development, the amount of overall growth, and the steps taken to reduce greenhouse gas emissions. Non-mitigation IPCC scenarios project an increase in global greenhouse gas emissions by 9.7 up to 36.7 billion metric tons CO<sub>2</sub> from 2000 to 2030, which represents an increase of between 25 and 90 percent.<sup>15</sup>

The assessment is further complicated by the fact that changes in greenhouse gas emissions can be difficult to attribute to a particular project because the projects often cause shifts in the locale for some type of greenhouse gas emissions, rather than causing "new" greenhouse gas emissions. It is difficult to assess the extent to which any project level increase in CO<sub>2</sub> emissions represents a net global increase, reduction, or no change; there are no models approved by regulatory agencies that operate at the global or even statewide scale.

### Construction Emissions

Greenhouse gas emissions for transportation projects can be divided into those produced during construction and those produced during operations. Construction GHG emissions include emissions produced as a result of material processing, emissions produced by on-site construction equipment, and emissions arising from traffic delays due to construction. These emissions will be produced at different levels throughout the construction phase; their frequency and occurrence can be reduced through innovations in plans and specifications and by implementing better traffic management during construction phases.

<sup>15</sup> Intergovernmental Panel on Climate Change (IPCC). February 2007. Climate Change 2007: The Physical Science Basis: Summary for Policy Makers. <http://www.ipcc.ch/SPM2feb07.pdf>.

In addition, with innovations such as longer pavement lives, improved traffic management plans, and changes in materials, the GHG emissions produced during construction can be mitigated to some degree by longer intervals between maintenance and rehabilitation events.

### **CEQA Conclusion**

As discussed above, both the future with project and future no build show an increase in CO<sub>2</sub> emissions over the existing levels; however, the future build CO<sub>2</sub> emissions are higher than the future no build emissions. In addition, as discussed above, there are also limitations with EMFAC and with assessing what a given CO<sub>2</sub> emissions increase means for climate change. Therefore, it is Caltrans determination that in the absence of further regulatory or scientific information related to greenhouse gas emissions and CEQA significance, it is too speculative to make a determination regarding significance of the project's direct impact and its contribution on the cumulative scale to climate change. However, Caltrans is firmly committed to implementing measures to help reduce the potential effects of the project. These measures are outlined in the following section.

### **Greenhouse Gas Reduction Strategies**

The Department continues to be involved on the Governor's Climate Action Team as the ARB works to implement Executive Orders S-3-05 and S-01-07 and help achieve the targets set forth in AB 32. Many of the strategies the Department is using to help meet the targets in AB 32 come from then-Governor Arnold Schwarzenegger's Strategic Growth Plan for California. The Strategic Growth Plan targeted a significant decrease in traffic congestion below 2008 levels and a corresponding reduction in GHG emissions, while accommodating growth in population and the economy. The Strategic Growth Plan relies on a complete systems approach to attain CO<sub>2</sub> reduction goals: system monitoring and evaluation, maintenance and preservation, smart land use and demand management, and operational improvements as shown in Figure 47 the mobility pyramid.

**Figure 47: Mobility Pyramid**



The Department is supporting efforts to reduce vehicle miles traveled by planning and implementing smart land use strategies: job/housing proximity, developing transit-oriented communities, and high-density housing along transit corridors. The Department works closely with local jurisdictions on planning activities, but does not have local land use planning authority. The Department assists efforts to improve the energy efficiency of the transportation sector by increasing vehicle fuel economy in new cars, light and heavy-duty trucks; the Department is doing this by supporting ongoing research efforts at universities, by supporting legislative efforts to increase fuel economy, and by participating on the Climate Action Team. It is important to note, however, that control of fuel economy standards is held by the U.S. Environmental Protection Agency and the Air Resources Board.

The Department is also working towards enhancing the State's transportation planning process to respond to future challenges. Similar to requirements for regional transportation plans under Senate Bill (SB) 375 (Steinberg 2008), SB 391(Liu 2009) requires the State's long-range transportation plan to meet California's climate change goals under Assembly Bill (AB) 32. The California Transportation Plan (CTP) is a statewide, long-range transportation plan to meet our future mobility needs and reduce greenhouse gas (GHG) emissions. The CTP defines performance-based goals, policies, and strategies to achieve our collective vision for California's future, statewide, integrated, multimodal transportation system. The purpose of the CTP is to provide a common policy framework that will guide transportation investments and decisions by all levels of government, the private sector, and other transportation stakeholders. Through this policy framework, the CTP 2040 will identify the statewide transportation system needed to achieve maximum feasible GHG emission reductions while meeting the State's transportation needs.

Table 36 summarizes the Departmental and statewide efforts that the Department is implementing to reduce GHG emissions. More detailed information about each strategy is included in the Climate Action Program at Caltrans (December 2006).

# I-110 Flyover Project

**Table 36: Climate Change/CO2 Reduction Strategies**

Strategy	Program	Partnership		Method/Process	Estimated CO <sub>2</sub>	
		Lead	Agency		2010	2020
Smart Land Use	Intergovernmental Review	Department	Local governments	Review and seek to mitigate development proposals	Not Estimated	Not Estimated
	Planning Grants	Department	Local and regional agencies and other stakeholders	Competitive selection process	Not Estimated	Not Estimated
	Regional Plans and Blueprint Planning	Regional agencies	Department	Regional plans and application process	0.975	7.8
Operational Improvements and Intelligent Transportation Systems Deployment	Strategic Growth Plan	Department	Regions	State ITS; Congestion Management Plan	0.007	2.17
Mainstream Energy and GHG Consideration in Plans and Projects	Office of Policy Analysis and Research; Division of Environmental Analysis	Interdepartmental effort		Policy establishment, guidelines and technical assistance	Not Estimated	Not Estimated
Educational and Informational Program	Office of Policy Analysis and Research	Interdepartmental, Cal/EPA, CARB, CEC		Analytical report, data collection, publication, workshops, outreach	Not Estimated	Not Estimated
Fleet Greening and Fuel Diversification	Division of Equipment	Department of General Services		Fleet replacement B20 B100	0.0045	0.0065 0.45 0.0225
Non-vehicular Conservation Measures	Energy Conservation Program	Green Action Team		Energy conservation opportunities	0.117	.34
Portland Cement	Office of Rigid Pavement	Cement and Construction Industries		2.5 % limestone cement mix 25% fly ash cement mix > 50% fly ash/slag mix	1.2 0.36	3.6
Goods Movement	Office of Goods Movement	Cal/EPA, CARB, BT&H, MPOs		Goods Movement Action Plan	Not Estimated	Not Estimated
Total					2.72	18.67
Note: MMT = million metric tons; Cal/EPA = California Environmental Protection Agency						
Source: Climate Action Program, Climate Change Report, 2006a						

Source: Air Quality Analysis Report (September 2015)

Caltrans Director's Policy 30 (DP-30) Climate Change (approved June 22, 2012) is intended to establish a Department policy that will ensure coordinated efforts to incorporate climate change into Departmental decisions and activities. Caltrans Activities to Address Climate Change (April 2013) provides a comprehensive overview of activities undertaken by Caltrans statewide to reduce greenhouse gas emissions resulting from agency operations.

## **GHG Emissions Reduction Strategies**

- SCAG shall update any future Regional Transportation Plans/Sustainable Community Plans and Regional Comprehensive Plans to incorporate policies and measures that lead to reduced greenhouse gas (GHG) emissions. Such policies and measures may be derived from the General Plans, local jurisdictions' Climate Action Plans (CAPs), and other adopted policies and plans of its member agencies that include GHG mitigation and adaptation measures or other sources
- SCAG shall, through its on-going outreach and technical assistance programs, work with and encourage local governments to adopt policies and develop practices that lead to GHG emission reductions. These activities will include, but are not limited to, providing technical assistance and information sharing on developing local Climate Action Plans
- SCAG shall work with the business community, including the Southern California Leadership Council and the Global Land Use and Environment Council, to develop regional economic strategies that promote energy savings and GHG emission reduction
- SCAG shall develop statewide strategies and approaches to reducing GHG emissions and implement SB 375 through its on-going coordination effort with other MPOs
- SCAG shall assist ARB and air districts in efforts to implement the AB 32 Scoping Plan
- SCAG shall develop a regional climate and economic development strategy that assesses the cost effectiveness of GHG reduction measures and prioritizes strategies that have greatest overall benefit to the economy
- SCAG, in its capacity as a Clean Cities Coalition, shall work with member local governments to promote the use of alternative fuel technology
- SCAG shall work with utilities, sub-regions, and other stakeholders to promote accelerated penetration of zero emission electric vehicles in the region, including developing a strategy for the deployment of public charging infrastructure
- SCAG member cities and the county governments can and should adopt and implement Climate Actions Plans (CAPs, also known as Plans for the Reduction of Greenhouse Gas Emissions as described in CEQA Guidelines Section 15183.5 Tiering and Streamlining the Analysis of Greenhouse Gas Emissions) that contain the following information:
  - a) Quantify GHG emissions, both existing and projected over a specified time period, resulting from activities within their respective jurisdictions
  - b) Establish a level, based on substantial evidence, below which the contribution to GHG emissions from activities covered by the plan would not be cumulatively considerable
  - c) Identify and analyze the GHG emissions resulting for specific actions or categories of actions anticipated within their respective jurisdictions



d) Specify measures or a group of measures, including performance standards, that substantial evidence demonstrates, if implemented on a project-by-project basis, would collectively achieve the specified emissions level

e) Establish a mechanism to monitor the plan's progress toward achieving that level and to require amendment if the plan is not achieving specified levels

f) Be adopted in a public process following environmental review. CAPs can and should, when appropriate, incorporate planning and land use measures from the California Attorney General's latest list of example policies to address climate change at both the plan and project level.

Specifically, at the plan level, land use plans can and should, when appropriate, incorporate planning and land use measures from the California Attorney General's latest list of example policies to address climate change ([http://ag.ca.gov/globalwarming/pdf/GP\\_policies.pdf](http://ag.ca.gov/globalwarming/pdf/GP_policies.pdf)), including, but not limited to policies from that web page such as:

- Smart growth, jobs/housing balance, transit-oriented development, and infill development through land use designations, incentives and fees, zoning, and public private partnerships
- Create transit, bicycle, and pedestrian connections through planning, funding, development requirements, incentives and regional cooperation, and create disincentives for auto use
- Energy and water-efficient buildings and landscaping through ordinances, development fees, incentives, project timing, prioritization, and other implementing tools

In addition, member cities and the county governments can and should incorporate, as appropriate, policies to encourage implementation of the Attorney General's list of project specific mitigation measures available at the following web site: [http://ag.ca.gov/globalwarming/pdf/GW\\_mitigation\\_measures.pdf](http://ag.ca.gov/globalwarming/pdf/GW_mitigation_measures.pdf), including, but not limited to measures from the web page, such as:

- Adopt a comprehensive parking policy that discourages private vehicle use and encourages the use of alternative transportation
- Build or fund a major transit stop within or near development
- Provide public transit incentives such as free or low-cost monthly transit passes to employees, or free ride areas to residents and customers
- Incorporate bicycle lanes, routes and facilities into street systems, new subdivisions, and large developments
- Require amenities for non-motorized transportation, such as secure and convenient bicycle parking

They should also incorporate, when appropriate, planning and land use measures from additional resources listed by the California Attorney General at the following webpage:

<http://ag.ca.gov/globalwarming/ceqa/resources.php>.

In addition, CAPs can and should also incorporate analysis of climate change adaptation, in recognition of the likely and potential effects of climate change in the future regardless of the level of mitigation and in conjunction with Executive Order S-13-08, which seeks to enhance the State's management of climate impacts including sea level rise, increased temperatures, shifting precipitation, and extreme weather events by facilitating the development of State's first climate adaptation strategy.

Project sponsors can and should require Best Available Control Technology (BACT) during construction and operation of projects, including:

- a) Solicit bids that include use of energy and fuel-efficient fleets;
  - b) Solicit preference construction bids that use BACT
  - c) Employ use of alternative fueled vehicles
  - d) Use lighting systems that are energy efficient, such as LED technology
  - e) Use CEQA Guidelines Appendix F, Energy Conservation, to create an energy conservation plan
  - f) Streamline permitting process to infill, redevelopment, and energy-efficient projects
  - g) Use an adopted emissions calculator to estimate construction-related emissions
  - h) Use the minimum feasible amount of GHG-emitting construction materials that is feasible
  - i) Use of cement blended with the maximum feasible amount of flash or other materials that reduce GHG emissions from cement production
  - j) Use of lighter-colored pavement where feasible
  - k) Recycle construction debris to maximum extent feasible
  - l) Plant shade trees in or near construction projects where feasible
- SCAG shall in its capacity as a Clean Cities Coalition, and local jurisdictions can and should establish a coordinated, creative public outreach campaign, including publicizing the importance of reducing GHG emissions and steps community members can take to reduce their individual impacts
  - Pedestrian and Bicycle Promotion: SCAG shall and local jurisdictions can and should work with local community groups and downtown business associations to organize and publicize walking tours and bicycle events, and to encourage pedestrian and bicycle modes of transportation
  - Waste Reduction: Local jurisdictions can and should organize workshops on waste reduction activities for the home or business, such as backyard composting, or office paper recycling, and will schedule recycling drop-off events and neighborhood chipping/mulching days
  - Water Conservation: SCAG shall and local jurisdictions can and should organize workshops on water conservation activities, such as selecting and planting drought tolerant, native plants in landscaping, and installing advanced irrigation systems
  - Energy Efficiency: SCAG shall and local jurisdictions can and should organize workshops on steps to increase energy efficiency in the home or business, such as weatherizing the home or building envelope, installing smart lighting systems, and how to conduct a self-audit for energy use and efficiency
  - Climate Protection Summit/Fair: SCAG shall and local jurisdictions can and should organize an annual Climate Protection Summit or Fair, to educate the public on current climate science, projected local impacts, and local efforts and opportunities to reduce GHG emissions, including exhibits of the latest technology and products for conservation and efficiency
  - Schools Programs: SCAG shall and local jurisdictions can and should develop and implement a program to present information to school children about climate change and ways to reduce GHG emissions, and will support school-based programs for GHG reduction, such as school based trip reduction and the importance of recycling

### *I-110 Flyover Project*

- The Department and the California Highway Patrol are working with regional agencies to implement Intelligent Transportation Systems (ITS) to help manage the efficiency of the existing highway system. ITS commonly consists of electronics, communications, or information processing used singly or in combination to improve the efficiency or safety of a surface transportation system
- In addition, the Council of Los Angeles County Governments provides ridesharing services and park-and-ride facilities to help manage the growth in demand for highway capacity
- Landscaping reduces surface warming and, through photosynthesis, decreases CO<sub>2</sub>. The project will include planting wherever feasible planting a variety of different-sized plant material
- According to Caltrans Standard Specifications, the contractor must comply with all of the local AQMD rules, ordinances, and regulations regarding air quality restrictions including, but not limited to, the SCAQMD's Rules 401, 402, and 403

Finally, a discussion of fugitive dust control measure is provided, and it is recommended that the measures be included as project commitments during construction activities. Below are best available control measures, which are applicable to all construction activity sources per SCAQMD Rule 403 Table 1 (shown in Table 37), SCAQMD Rule 403 Table 2 (shown in Table 38), and SCAQMD Rule 403 Table 3 ( shown in Table 39) per the Air Quality Analysis Report (September 2015).

## I-110 Flyover Project

**Table 37: SCAQMD Rule 403 Table 1 Best Available Control Measures (Applicable to All Construction Activity Sources)**

Source Category	Control Measure	Guidance
Backfilling	01-1 Stabilize backfill material when not actively handling; and 01-2 Stabilize backfill material during handling; and 01-3 Stabilize soil at completion of activity.	<ul style="list-style-type: none"> <li>✓ Mix backfill soil with water prior to moving</li> <li>✓ Dedicate water truck or high capacity hose to backfilling equipment</li> <li>✓ Empty loader bucket slowly so that no dust plumes are generated</li> <li>✓ Minimize drop height from loader bucket</li> </ul>
Clearing and grubbing	02-1 Maintain stability of soil through pre-watering of site prior to clearing and grubbing; and 02-2 Stabilize soil during clearing and grubbing activities; and 02-3 Stabilize soil immediately after clearing and grubbing activities.	<ul style="list-style-type: none"> <li>✓ Maintain live perennial vegetation where possible</li> <li>✓ Apply water in sufficient quantity to prevent generation of dust plumes</li> </ul>
Clearing forms	03-1 Use water spray to clear forms; or 03-2 Use sweeping and water spray to clear forms; or 03-3 Use vacuum system to clear forms.	<ul style="list-style-type: none"> <li>✓ Use of high pressure air to clear forms may cause exceedance of Rule requirements</li> </ul>
Crushing	04-1 Stabilize surface soils prior to operation of Support equipment; and 04-2 Stabilize material after crushing.	<ul style="list-style-type: none"> <li>✓ Follow permit conditions for crushing equipment</li> <li>✓ Pre-water material prior to loading into crusher</li> <li>✓ Monitor crusher emissions opacity</li> <li>✓ Apply water to crushed material to prevent dust plumes</li> </ul>
Cut and fill	05-1 Pre-water soils prior to cut and fill activities; and 05-2 Stabilize soil during and after cut and fill activities.	<ul style="list-style-type: none"> <li>✓ For large sites, pre-water with sprinklers or water trucks and allow time for penetration</li> <li>✓ Use water trucks/pulls to water soils to depth of cut prior to subsequent cuts</li> </ul>
Demolition - Mechanical/manual	06-1 Stabilize wind erodible surfaces to reduce dust; and 06-2 Stabilize surface soil where support equipment and vehicles will operate; and 06-3 Stabilize loose soil and demolition debris; and 06-4 Comply with AQMD Rule 1403.	<ul style="list-style-type: none"> <li>✓ Apply water in sufficient quantities to prevent the generation of visible dust plumes</li> </ul>
Disturbed soil	07-1 Stabilize disturbed soil throughout the construction site; and 07-2 Stabilize disturbed soil between structures	<ul style="list-style-type: none"> <li>✓ Limit vehicular traffic and disturbances on soils where possible</li> <li>✓ If interior block walls are planned, install as early as possible</li> <li>✓ Apply water or a stabilizing agent in sufficient quantities to prevent the generation of visible dust plumes</li> </ul>

Earth-moving activities	08-1 Pre-apply water to depth of proposed cuts; and 08-2 Re-apply water as necessary to maintain soils in a damp condition and to ensure that visible emissions do not exceed 100 feet in any direction; and 08-3 Stabilize soils once earth-moving activities are complete.	<ul style="list-style-type: none"> <li>✓ Grade each project phase separately, timed to coincide with construction phase</li> <li>✓ Upwind fencing can prevent material movement on site</li> <li>✓ Apply water or a stabilizing agent in sufficient quantities to prevent the generation of visible dust plumes</li> </ul>
Importing/exporting of bulk materials	09-1 Stabilize material while loading to reduce fugitive dust Emissions; and 09-2 Maintain at least six inches of freeboard on haul vehicles; and 09-3 Stabilize material while transporting to reduce fugitive dust emissions; and 09-4 Stabilize material while unloading to reduce fugitive dust emissions; and 09-5 Comply with Vehicle Code Section 23114.	<ul style="list-style-type: none"> <li>✓ Use tarps or other suitable enclosures on haul trucks</li> <li>✓ Check belly-dump truck seals regularly and remove any trapped rocks to prevent spillage</li> <li>✓ Comply with track-out prevention/mitigation requirements</li> <li>✓ Provide water while loading and unloading to reduce visible dust plumes</li> </ul>
Landscaping	10-1 Stabilize soils, materials, slopes	<ul style="list-style-type: none"> <li>✓ Apply water to material to stabilize</li> <li>✓ Maintain materials in a crusted condition</li> <li>✓ Maintain effective cover over materials</li> <li>✓ Stabilize sloping surfaces using soil binders until vegetation or ground cover can effectively stabilize the slopes</li> <li>✓ Hydro seed prior to rain season</li> </ul>
Road shoulder maintenance	11-1 Apply water to unpaved shoulders prior to clearing; and 11-2 Apply chemical dust suppressants and/or washed gravel to maintain a stabilized surface after completing road shoulder maintenance.	<ul style="list-style-type: none"> <li>✓ Installation of curbing and/or paving of road shoulders can reduce recurring maintenance costs</li> <li>✓ Use of chemical dust suppressants can inhibit vegetation growth and reduce future road shoulder maintenance costs</li> </ul>
Screening	12-1 Pre-water material prior to screening; and 12-2 Limit fugitive dust emissions to opacity and plume length standards; and 12-3 Stabilize material immediately after screening.	<ul style="list-style-type: none"> <li>✓ Dedicate water truck or high capacity hose to screening operation</li> <li>✓ Drop material through the screen slowly and minimize drop height</li> <li>✓ Install wind barrier with a porosity of no more than 50% upwind of screen to the height of the drop point</li> </ul>
Staging areas	13-1 Stabilize staging areas during use; and 13-2 Stabilize staging area soils at project completion.	<ul style="list-style-type: none"> <li>✓ Limit size of staging area</li> <li>✓ Limit vehicle speeds to 15 miles per hour</li> <li>✓ Limit number and size of staging area entrances/exits</li> </ul>

## *I-110 Flyover Project*

Stockpiles/ Bulk Material Handling	14-1 Stabilize stockpiled materials. 14-2 Stockpiles within 100 yards of off-site occupied buildings must not be greater than eight feet in height; or must have a road bladed to the top to allow water truck access or must have an operational water irrigation system that is capable of complete stockpile coverage.	<ul style="list-style-type: none"> <li>✓ Add or remove material from the downwind portion of the storage pile</li> <li>✓ Maintain storage piles to avoid steep sides or faces</li> </ul>
Traffic areas for construction activities	15-1 Stabilize all off-road traffic and parking areas; and 15-2 Stabilize all haul routes; and 15-3 Direct construction traffic over established haul routes.	<ul style="list-style-type: none"> <li>✓ Apply gravel/paving to all haul routes as soon as possible to all future roadway areas water trucks and allow time for penetration</li> <li>✓ Barriers can be used to ensure vehicles are only used on established parking areas/haul routes</li> </ul>
Trenching	16-1 Stabilize surface soils where trencher or excavator and Support equipment will operate; and 16-2 Stabilize soils at the completion of trenching activities.	<ul style="list-style-type: none"> <li>✓ Pre-watering of soils prior to trenching is an effective preventive measure. For deep trenching Activities, pre-trench to 18 inches soak soils via the pre-trench and resuming trenching</li> <li>✓ Washing mud and soils from equipment at the conclusion of trenching activities can prevent Crusting and drying of soil on equipment</li> </ul>
Turf Overseeding	18-1 Apply sufficient water immediately prior to conducting turf vacuuming activities to meet opacity and plume length standards; and 18-2 Cover haul vehicles prior to exiting the site.	<ul style="list-style-type: none"> <li>✓ Haul waste material immediately off-site</li> </ul>
Unpaved roads/parking lots	19-1 Stabilize soils to meet the applicable performance standards; and 19-2 Limit vehicular travel to established unpaved roads (haul routes) and unpaved parking lots.	<ul style="list-style-type: none"> <li>✓ Restricting vehicular access to established unpaved travel paths and parking lots can reduce Stabilization requirements</li> </ul>
Vacant land	20-1 In instances where vacant lots are 0.10 acre or larger and have a cumulative area of 500 square feet or more that are driven over and/or used by motor vehicles and/or off-road vehicles, prevent motor vehicle and/or off-road vehicle trespassing, parking and/or access by installing barriers, curbs, fences, gates, posts, signs, shrubs, trees or other effective control measures.	

Source: Air Quality Analysis Report (September 2015)

## I-110 Flyover Project

**Table 38: SCAQMD Rule 403 Table 2 Dust Control Measures for Large Operations**

FUGITIVE DUST SOURCE CATEGORY	CONTROL ACTIONS
Earth-moving (except construction cutting and filling areas, and mining operations)	<p>(1a) Maintain soil moisture content at a minimum of 12 percent, as determined by ASTM method D-2216, or other equivalent method approved by the Executive Officer, the California Air Resources Board, and the U.S. EPA. Two soil moisture evaluations must be conducted during the first three hours of active operations during a calendar day, and two such evaluations each subsequent four-hour period of active operations; OR</p> <p>(1a-1) For any earth-moving which is more than 100 feet from all property lines, conduct watering as necessary to prevent visible dust emissions from exceeding 100 feet in length in any direction.</p>
Earth-moving: Construction fill areas:	<p>(1b) Maintain soil moisture content at a minimum of 12 percent, as determined by ASTM method D-2216, or other equivalent method approved by the Executive Officer, the California Air Resources Board, and the U.S. EPA. For areas which have an optimum moisture content for compaction of less than 12 percent, as determined by ASTM Method 1557 or other equivalent method approved by the Executive Officer and the California Air Resources Board and the U.S. EPA, complete the compaction process as expeditiously as possible after achieving at least 70 percent of the optimum soil moisture content. Two soil moisture evaluations must be conducted during the first three hours of active operations during a calendar day, and two such evaluations during each subsequent four-hour period of active operations.</p>
Earth-moving: Construction cut areas and mining operations:	<p>(1c) Conduct watering as necessary to prevent visible emissions from extending more than 100 feet beyond the active cut or mining area unless the area is inaccessible to watering vehicles due to slope conditions or other safety factors.</p>
Disturbed surface areas (except completed grading areas)	<p>(2a/b) Apply dust suppression in sufficient quantity and frequency to maintain a stabilized surface. Any areas which cannot be stabilized, as evidenced by wind driven fugitive dust must have an application of water at least twice per day to at least 80 percent of the unstabilized area.</p>
Disturbed surface areas: Completed grading areas	<p>(2c) Apply chemical stabilizers within five working days of grading completion; OR</p> <p>(2d) Take actions (3a) or (3c) specified for inactive disturbed surface areas.</p>
Inactive disturbed surface areas	<p>(3a) Apply water to at least 80 percent of all inactive disturbed surface areas on a daily basis when there is evidence of wind driven fugitive dust, excluding any areas which are inaccessible to watering vehicles due to excessive slope or other safety conditions; OR</p> <p>(3b) Apply dust suppressants in sufficient quantity and frequency to maintain a stabilized surface; OR</p> <p>(3c) Establish a vegetative ground cover within 21 days after active operations have ceased. Ground cover must be of sufficient density to expose less than 30 percent of unstabilized ground within 90 days of planting, and at all times thereafter; OR</p> <p>(3d) Utilize any combination of control actions (3a), (3b), and (3c) such that, in total, these actions apply to all inactive disturbed surface areas.</p>
Unpaved Roads	<p>(4a) Water all roads used for any vehicular traffic at least once per every two hours of active operations [3 times per normal 8 hours work day]; OR</p> <p>(4b) Water all roads used for any vehicular traffic once daily and restrict vehicle speeds to 15 miles per hour; OR</p> <p>(4c) Apply a chemical stabilizer to all unpaved road surfaces in sufficient quantity and frequency to maintain a stabilized surface.</p>
Open storage piles	<p>(5a) Apply chemical stabilizers; OR</p> <p>(5b) Apply water to at least 80 percent of the surface area of all open storage piles on a daily basis when there is evidence of wind driven fugitive dust; OR</p> <p>(5c) Install temporary coverings; OR</p> <p>(5d) Install a three-sided enclosure with walls with no more than 50 percent porosity which extend, at a minimum, to the top of the pile. This option may only be used at aggregate-related plants or at cement manufacturing facilities.</p>
All Categories	<p>(6a) Any other control measures approved by the Executive Officer and the U.S. EPA as equivalent to the methods specified in Table 2 may be used.</p>

Source: Air Quality Analysis Report (September 2015)

**Table 39: SCAQMD Rule 403 Table 3 Dust Control Measures for Large Operations**

FUGITIVE DUST SOURCE CATEGORY	CONTROL MEASURES
Earth-moving	(1A) Cease all active operations; OR (2A) Apply water to soil not more than 15 minutes prior to moving such soil.
Disturbed surface areas	(0B) On the last day of active operations prior to a weekend, holiday, or any other period when active operations will not occur for not more than four consecutive days: apply water with a mixture of chemical stabilizer diluted to not less than 1/20 of the concentration required to maintain a stabilized surface for a period of six months; OR (1B) Apply chemical stabilizers prior to wind event; OR (2B) Apply water to all unstabilized disturbed areas 3 times per day. If there is any evidence of wind driven fugitive dust, watering frequency is increased to a minimum of four times per day; OR (3B) Take the actions specified in Table 2, item (3c); OR (4B) Utilize any combination of control actions (1B), (2B), and (3B) such that, in total, these actions apply to all disturbed surface areas.
Unpaved roads	(1C) Apply chemical stabilizers prior to wind event; OR (2C) Apply water twice per hour during active operation; OR (3C) Stop all vehicular traffic.
Open storage piles	(1D) Apply water twice per hour; OR (2D) Install temporary coverings.
Paved road track-out	(1E) Cover all haul vehicles; OR (2E) Comply with the vehicle freeboard requirements of Section 23114 of the California Vehicle Code for both public and private roads.
All Categories	(1F) Any other control measures approved by the Executive Officer and the U.S. EPA as equivalent to the methods specified in Table 3 may be used.

Source: Air Quality Analysis Report (September 2015)

## Adaptation Strategies

“Adaptation strategies” refer to how the Department and others can plan for the effects of climate change on the state’s transportation infrastructure and strengthen or protect the facilities from damage. Climate change is expected to produce increased variability in precipitation, rising temperatures, rising sea levels, variability in storm surges and intensity, and the frequency and intensity of wildfires. These changes may affect the transportation infrastructure in various ways, such as damage to roadbeds from longer periods of intense heat; increasing storm damage from flooding and erosion; and inundation from rising sea levels. These effects will vary by location and may, in the most extreme cases, require that a facility be relocated or redesigned. There may also be economic and strategic ramifications as a result of these types of impacts to the transportation infrastructure.

At the Federal level, the Climate Change Adaptation Task Force, co-chaired by the White House Council on Environmental Quality (CEQ), the Office of Science and Technology Policy (OSTP), and the National Oceanic and Atmospheric Administration (NOAA), released its interagency task force progress report on October 28, 2011<sup>16</sup>, outlining the federal government's progress in expanding and strengthening the Nation's capacity to better understand, prepare for, and respond to

<sup>16</sup> <http://www.whitehouse.gov/administration/eop/ceq/initiatives/adaptation>

extreme events and other climate change impacts. The report provides an update on actions in key areas of federal adaptation, including: building resilience in local communities, safeguarding critical natural resources such as freshwater, and providing accessible climate information and tools to help decision-makers manage climate risks .

Climate change adaptation must also involve the natural environment as well. Efforts are underway on a statewide-level to develop strategies to cope with impacts to habitat and biodiversity through planning and conservation. The results of these efforts will help California agencies plan and implement mitigation strategies for programs and projects.

On November 14, 2008, then-Governor Arnold Schwarzenegger signed EO S-13-08, which directed a number of state agencies to address California's vulnerability to sea level rise caused by climate change. This EO set in motion several agencies and actions to address the concern of sea level rise.

In addition to addressing projected sea level rise, the California Natural Resources Agency (Resources Agency) was directed to coordinate with local, regional, state and federal public and private entities to develop The California Climate Adaptation Strategy (Dec 2009)<sup>17</sup>, which summarizes the best-known science on climate change impacts to California, assesses California's vulnerability to the identified impacts, and then outlines solutions that can be implemented within and across state agencies to promote resiliency.

The strategy outline is in direct response to EO S-13-08 that specifically asked the Resources Agency to identify how state agencies can respond to rising temperatures, changing precipitation patterns, sea level rise, and extreme natural events. Numerous other state agencies were involved in the creation of the Adaptation Strategy document, including the California Environmental Protection Agency; Business, Transportation and Housing; Health and Human Services; and the Department of Agriculture. The document is broken down into strategies for different sectors that include: Public Health; Biodiversity and Habitat; Ocean and Coastal Resources; Water Management; Agriculture; Forestry; and Transportation and Energy Infrastructure. As data continues to be developed and collected, the state's adaptation strategy will be updated to reflect current findings.

The National Academy of Science was directed to prepare a Sea Level Rise Assessment Report<sup>18</sup> to recommend how California should plan for future sea level rise. The report was released in June 2012 and included:

- Relative sea level rise projections for California, Oregon and Washington taking into account coastal erosion rates, tidal impacts, El Niño and La Niña events, storm surge and land subsidence rates
- The range of uncertainty in selected sea level rise projections
- A synthesis of existing information on projected sea level rise impacts to state infrastructure (such as roads, public facilities and beaches), natural areas, and coastal and marine ecosystems
- A discussion of future research needs regarding sea level rise

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<sup>17</sup> <http://www.energy.ca.gov/2009publications/CNRA-1000-2009-027/CNRA-1000-2009-027-F.PDF>

<sup>18</sup> *Sea Level Rise for the Coasts of California, Oregon, and Washington: Past, Present, and Future* (2012) is available at [http://www.nap.edu/catalog.php?record\\_id=13389](http://www.nap.edu/catalog.php?record_id=13389).



In 2010, interim guidance was released by The Coastal Ocean Climate Action Team (CO-CAT) as well as Caltrans as a method to initiate action and discussion of potential risks to the states infrastructure due to projected sea level rise. Subsequently, CO-CAT updated the Sea Level Rise guidance to include information presented in the National Academies Study.

All state agencies that are planning to construct projects in areas vulnerable to future sea level rise are directed to consider a range of sea level rise scenarios for the years 2050 and 2100 to assess project vulnerability and, to the extent feasible, reduce expected risks and increase resiliency to sea level rise. Sea level rise estimates should also be used in conjunction with information on local uplift and subsidence, coastal erosion rates, predicted higher high water levels, storm surge and storm wave data.

All projects that have filed a Notice of Preparation as of the date of EO S-13-08, and/or are programmed for construction funding from 2008 through 2013, or are routine maintenance projects may, but are not required to, consider these planning guidelines. The proposed project is outside the coastal zone and direct impacts to transportation facilities due to projected sea level rise are not expected.

Executive Order S-13-08 also directed the Business, Transportation, and Housing Agency to prepare a report to assess vulnerability of transportation systems to sea level rise affecting safety, maintenance and operational improvements of the system, and economy of the state. The Department continues to work on assessing the transportation system vulnerability to climate change, including the effect of sea level rise.

Currently, the Department is working to assess which transportation facilities are at greatest risk from climate change effects. However, without statewide planning scenarios for relative sea level rise and other climate change effects, the Department has not been able to determine what change, if any, may be made to its design standards for its transportation facilities. Once statewide planning scenarios become available, the Department will be able review its current design standards to determine what changes, if any, may be needed to protect the transportation system from sea level rise.

Climate change adaptation for transportation infrastructure involves long-term planning and risk management to address vulnerabilities in the transportation system from increased precipitation and flooding; the increased frequency and intensity of storms and wildfires; rising temperatures; and rising sea levels. The Department is an active participant in the efforts being conducted in response to EO S-13-08 and is mobilizing to be able to respond to the National Academy of Science Sea Level Rise Assessment Report.

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## **Chapter 3 Comments and Coordination**

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Early and continuing coordination with the general public and public agencies is an essential part of the environmental process. It helps planners determine the necessary scope of environmental documentation and the level of analysis required, and to identify potential impacts and avoidance, minimization and/or mitigation measures and related environmental requirements. Agency consultation and public participation for this project have been accomplished through a variety of formal and informal methods, including Project Development Team (PDT) meetings, courtesy coordination meetings, and informational meetings. This chapter summarizes the results of the Department's efforts to fully identify, address, and resolve project-related issues through early and continuing coordination.

The PDT is an internal project team, which is formed with project staff from many different disciplines to help the project manager in directing the course of studies makes recommendations and works to carry out the project work plan. They participate in major meetings, public hearings and community involvement. They also serve as the nucleus for value analysis and are responsible for conducting studies and accumulating data throughout project development.

At a minimum, a PDT is composed of the project manager, a representative of the regional transportation planning agency (if involved), and representatives from district design, environmental, traffic, safety, surveys, construction, and maintenance units, and the right of way branch. An environmental representative is a required member. The selection of additional team members depends on the scope and complexity of the proposed project. The interdisciplinary skills of the district, Headquarters, FHWA, local and regional agencies, and other sources are requested as needed, to ensure that engineering, social, economic, and environmental aspects are adequately assessed, and reasonable evaluations and decisions are made. Representatives of resource and regulatory agencies are encouraged to participate. The PDT may include individuals from local or regional agencies and/or representatives of community groups.

The Project Development Team fulfills many critical duties throughout the life of a project, including:

- Ensure quality project design
- Reevaluate systems planning recommendations
- Determine logical project limits
- Determine the need for external members and advisory committees
- Recommend studies, timetables, alternatives, type of environmental document, and the feasibility of mitigation measures
- Ensure thorough analysis of social, economic, environmental and engineering issues
- Plan and initiate public outreach
- Ensure that state and federal requirements are met
- Recommend a preferred alternative
- Ensure timely right-of-way acquisition
- Provide advice during construction
- Ensure that project history is preserved

## **Consultation and Coordination**

Refer to the Distribution List in Chapter 5 of this document for lists Federal agencies, State agencies, interested parties, and schools.

## **Public Involvement**

As mentioned earlier in section 2.1.5 of this document, Caltrans held an open house/public input meeting on May 3, 1990. This meeting was held because of local concerns following the circulation of the I-110 Transitway Northern Terminus to Adams Boulevard Initial Study/Environmental Assessment.

The recommended alternative (Northbound HOV off-ramp to Figueroa Street and Southbound HOV On-ramp from realigned Flower Street, south of 23<sup>rd</sup> Street with the demolition and reconstruction of the Flower Street Overcrossing) was the main subject. Some of the primary features of the alternative were as follows:

- An elevated structure Bus/HOV transitway, an elevated HOV northbound off-ramp to Figueroa St. just south of 23<sup>rd</sup> St., and an elevated HOV southbound on-ramp from a realigned Flower St. south of 23<sup>rd</sup> St. just west of the Orthopedic Hospital (2400 South Flower St.).
- The northbound HOV off-ramp structure would diverge from the mainline transitway and pass over the Adams Blvd. overcrossing, the southbound HOV on-ramp structure, and the realigned Flower St. overcrossing. Likewise, the southbound HOV on-ramp structure would pass over the Adams Blvd. overcrossing and merge the mainline transit way structure south of 27<sup>th</sup> St.

There was considerable public opposition to implementing the recommended alternative. Some of the major concerns expressed by attendees were as follows: opposition to widening Figueroa St., circulation impacts due to the increased traffic, Figueroa St. becoming unsafe for pedestrians, harm to historic properties, noise impacts, air quality, aesthetics, and vibration impacts, opposition to the conclusions in the environmental document, earthquake impacts on structures, and lack of public involvement.

The meeting was adjourned with the understanding that Caltrans would develop other alternatives for the Northern Terminus proposal. After the open house/public input meeting Caltrans met several times with hospital officials, community groups, and the City of Los Angeles Department of Transportation (LADOT) to work out modifications to the design amenable to all concerned. Several alternatives were developed, but were later found infeasible. Another concern was voiced, when the Los Angeles County Transportation Commission (LACTC) was unable to make a firm commitment to a future Light Rail Transit Line on Flower St. This made it difficult for Caltrans and LACTC to develop a mutually usable design configuration for the Flower St. Bridge. Because of these issues and concerns, the design configurations were dropped from further consideration.

## *I-110 Flyover Project*

In February of 2013, the community was given the opportunity to comment on the Notice of Scoping/ Initiation of Studies for the project. Comment letters were received and have been taken into consideration during the design of the project as well as the environmental evaluation process. A courtesy meeting was initiated with St. John's Cathedral Church clergy due to the proximity of the historical church to the proposed project. This meeting was held on October 7, 2014 at in the Caltrans District Office.

Per the request of St. John's Church Leaders and other interested Stakeholders, on December 3, 2014 Caltrans and Metro presented information on the project. The presented information was preliminary. The information provided at this meeting included funding, history of the project as well as purpose and need, project development/environmental process, the proposed Build Alternative, traffic, visual resources overview, historical resources (Section 106 Compliance), and the project schedule. Follow-up coordination occurred throughout the project development process.

On April 22, 2015, Caltrans held a Section 106 Consulting Party Meeting at in the Caltrans District Office. This meeting provided approved Consulting Parties the opportunity to provide input on potential design features on the proposed elevated structure.

Caltrans is working closely with other team members to ensure transparency throughout the project development process as well as the environmental process. Public outreach is a part of our environmental process, and Caltrans will continue to provide opportunities for the public to comment on this project to ensure public involvement.

### **Community Issues and Attitudes**

Some of the major concerns voiced by interested parties are potential effect of the proposed project on historical properties, lighting and signage, cumulative impacts specifically with MyFig Project, compliance with NEPA & CEQA, noise, vibrations, traffic, air quality, quality of life, desire for alternatives other than driving, underground alternatives, environmental pollution, visual impacts, changes in property values, impacts to bus services, and the space under the flyover structure potentially becoming encampments of homeless persons as well as trash dumping.

Some groups have shown opposition to the Build Alternative. These groups include St. John's Cathedral Church staff, West Adams Heritage Association, North University Park Community Association, University Park Historic Preservation Overlay Zone Board, and Adams Dockweiler Heritage Organizing Committee.

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## **Chapter 4      List of Preparers**

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### **Caltrans District 7 Division of Environmental Planning**

Ronald Kosinski, Deputy District Director of Environmental Planning, 41 years of experience. Cal Poly Pomona, MA in Urban Planning (1976).

Garrett Damrath, Chief Environmental Planner, 17 years of experience. California State University at San Bernardino, BA in Environmental Studies (1997), and BA in Geography (1998).

Allison Morrow, Senior Environmental Planner (Environmental oversight), 7 years of experience. University of California, Irvine, BA in Environmental Analysis and Design (2007), and California State University, Long Beach, Master of Business Administration (2012).

Sally Moawad, Associate Environmental Planner (CEQA/NEPA & Community Impact Assessment), 9 years of experience. California State University, Fullerton, BA in Political Science (2004) and MS in Environmental Studies, emphasis Policy and Planning (2007).

Kelly Ewing-Toledo, Senior Environmental Planner (Cultural Resources), 15 years of experience. California State University, Fullerton, MA History/Public History (2000).

Francesca Smith, Associate Environmental Planner/Architectural Historical (Historical Resources), 29 years of experience. Columbia University, BA, Political Science (1981) and MS (1986) in Real Estate Development (completed requirements for MA in Historic Preservation).

Caprice Harper, Associate Environmental Planner (Archeology), 18+ years of experience. California State University, Los Angeles, BA in Anthropology (1992), Masters in Anthropology (1997) and University of Victoria, British Columbia Graduate Professional Certificate in Cultural Heritage Studies (2013).

Paul Caron, Senior Environmental Planner (Biology), 24 years of experience. Cal Poly, San Luis Obispo, BS in Environmental and Systematic Biology (1990).

Dawn Kukla, Supervising Environmental Planner (Paleontology), 17 years of experience. University of California, Santa Barbara, BA in Environmental Studies (1998) and BA in Geography (1998).

Andrew Yoon, Senior Transportation Engineer (Air Quality), 18 years of experience. University of California, Los Angeles, BS in Civil and Environmental Engineering (1997).

Jin S. Lee, Senior Transportation Engineer (Noise & Vibration oversight) 27 years of experience. University of Washington, BS in Civil Engineering (1988).

Samia Soueidan, Transportation Engineer (Noise & Vibration), 9 years of experience. California State University, Long Beach, BS in Civil Engineering (2001).

## *I-110 Flyover Project*

Steve Chan, Senior Transportation Engineer (Hazardous Materials Oversight), 24 years of experience. California State University, Los Angeles, BS in Civil Engineering (1991), Registered Professional Engineer (PE) (1995).

Hung Pham, Transportation Engineer (Hazardous Materials), 8.5 years of experience. California State University, Long Beach, BA in Civil Engineering (2004).

### **Caltrans District 7 Division of Project Development**

Khan Hossain, Senior Transportation Engineer (Design), 23 years of experience. California State University, Los Angeles, MS in Civil Engineering (1999) and Masters in Engineering (1993).

Andranik Arzumanian, Transportation Engineer (Design), over 17 years of experience. Cal State University, Long Beach, MS in Civil Engineering Structural (1985).

### **Caltrans District 7 Division of Project Management**

John Vassiliades, Project Manager, 32 years of experience. California State University, Long Beach, MS in Civil Engineering (1982).

Mirna Dagher, Project Manager, 12 years of experience. California State Polytechnic University, Pomona, BS in Civil Engineering (1993).

### **Caltrans District 7 Office of Engineering Services**

Shirley Pak, Senior Transportation Engineer (Stormwater/Water Quality), 15 years of experience. University of Southern California, B.S. in Civil Engineering (1988).

Gustavo Ortega, Senior Engineering Geologist (Geotechnical Design), 33 years of experience. National Polytechnic Institute/Mexico City, BS in Engineering Geology (1982), MS in Geology (1985).

### **Caltrans District 7 Office of Landscape Architecture**

George Olguin, Landscape Associate (Visual Impact Assessment), 25 years of experience. California State Polytechnic University, Pomona, BS in Landscape Architecture (BSLA) (1989).

### **Caltrans District 7 Office of Freeway Operations**

George Chammas, Transportation Engineer (Traffic Operations), 25 years of experience. Cal State University, Los Angeles, BS in Civil Engineering (1984).



## Chapter 5 Distribution List

**Table 40: Distribution List**

Agency/Public/ Elected Official	Name	Affiliation	Address	City, State, Zip Code
Agency	Stephanie Hall	Los Angeles District, United States Army Corps of Engineers	915 Wilshire Blvd, Suite 930	Los Angeles, CA 90017
Agency	Rick Farris	United States Fish and Wildlife Service	2493 Portola Rd, Suite B	Ventura, CA 93003
Agency	Raymond Sukys	Federal Transit Administration	201 Mission St, Suite 1650	San Francisco, CA 94105-1839
Agency	Patricia S. Port	United States Department of the Interior	333 Bush St, Ste 151	San Francisco, CA 94104
Agency	Marilyn Sutton	National Park Service	401 West Hillcrest Dr.	Thousand Oaks, CA 91360
Agency	Alessandro Amaglio	Federal Emergency Management Agency	1111 Broadway, Suite 1200	Oakland, CA 94607-4052
Agency	Eric Worrell	Federal Highway Administration, California Division	650 Capitol Mall, Ste 4-100	Sacramento, CA 95814
Agency	Bridgett Luther	California Department of Conservation	801 "K" Street, MS 24-01	Sacramento, CA 95814
Agency	Ed Pert	California Department of Fish & Wildlife	3883 Ruffin Road	San Diego, CA 92123
Agency	Kirk Miller	California Resources Agency	1416 Ninth Street, Suite 1311	Sacramento, CA 95814
Agency	S.V. Bernard	California Highway Patrol	411 N. Central Ave, Suite 410	Glendale, CA 91203
Agency	Mindy Fox	California Integrated Waste Management Board	1001 I Street, PO Box 4025	Sacramento, CA 95814
Agency	Frank Rudy	State Water Resources Control Board	1001 I Street	Sacramento, CA 95814
Agency	Larry Myers	California Native American Heritage Commission	915 Capitol Mall, Rm 364	Sacramento, CA 95814
Agency	Barbara McDonald	California Department of Water Resources	1416 9th Street	Sacramento, CA 95814
Agency	Milford Wayne Donaldson	Office of Historic Preservation	1416 9th Street, Rm 1442-7	Sacramento, CA 95814
Agency	Terry Roberts	State Clearinghouse	PO Box 3044	Sacramento, CA 95814
Agency	Andrew Barnesdale	California Public Utilities Commission	505 Van Ness Ave.	San Francisco, CA 94102

*I-110 Flyover Project*

<b>Agency/Public/ Elected Official</b>	<b>Name</b>	<b>Affiliation</b>	<b>Address</b>	<b>City, State, Zip Code</b>
Agency	Theresa Rodgers	State Water Resources Control Board - Los Angeles Region	320 W 4th St, Ste 200	Los Angeles, CA 90013
Agency	Henry Renteria	Governor's Office of Emergency Services	3650 Schreiver Ave	Mather, CA 95655
Agency	Marzia Zafar	Public Utilities Commission	320 W 4th St, Ste 500	Los Angeles, CA 90013
Agency	Scott Hartwell	Los Angeles County Metropolitan Transportation Authority	One Gateway Plaza, MS 99-23-2	Los Angeles, CA 90012
Agency	Stephanie Wiggins	Los Angeles County Metropolitan Transportation Authority	One Gateway Plaza	Los Angeles, CA 90012
Agency	Jim Kenan	Orange County Transportation Authority	550 S. Main St, PO Box 14184	Orange, CA 92863-1584
Agency		Santa Monica Big Blue Bus	1660 7th Street	Santa Monica, CA 90401
Agency	Derick MaHone	Torrance Transit	20500 Madrona Ave	Torrance, CA 90503-3692
Agency	James R. Mills	Torrance Transit	20500 Madrona Ave	Torrance, CA 90503-2684
Agency	Aurora Jackson	Montebello Bus Lines	400 S. Taylor Ave	Montebello, CA 90640
Agency		Gardena Bus Lines	15350 South Van Ness	Gardena, CA 90249
Agency		Carson Circuit	3 Civic Plaza Drive	Carson, CA 90745
Agency	Jeff Carpenter	CRA/LA	1200 W. 7th St, 2nd floor	Los Angeles, CA 90017
Agency		City of Los Angeles Department of Transportation	100 S Main St, 10th Floor	Los Angeles, CA 90012
Agency	Rongsheng Luo	Southern California Association of Governments	818 W Seventh St, 12th Floor	Los Angeles, CA 90017
Agency		South Coast Air Quality Management District	21865 Copley Dr.	Diamond Bar, CA 91765
Agency	Rebecca DeLeon	Metropolitan Water District	700 N Alameda St, US3-230	Los Angeles, CA 90012
Agency	Gail Goldberg	Los Angeles Department of City Planning	200 N Spring St	Los Angeles CA 90012
Agency	Dean D. Efstathiou	Los Angeles County Department of Public Works	900 S Fremont Ave	Alhambra, CA 91803
Agency	John Todd	Los Angeles County Fire Department	1320 North Eastern Ave	Los Angeles, CA 90063
Agency	Paul D. McCarthy	Los Angeles County Dept of Regional Planning	Hall of Records, 13th Floor, 320 W Temple St	Los Angeles, CA 90012
Agency	Stephen R. Maguin	Los Angeles County Sanitation District	PO Box 4998	Whittier, CA 90607-4998
Agency	H. David Nahai	Los Angeles Department of Water and Power	PO Box 51111	Los Angeles, CA 90051-0100
Agency	Leroy D. Baca	Los Angeles County Sheriff's Department	4700 Ramona Blvd	Monterey Park, CA 91754
Agency	Devon M. Deming	Los Angeles World Airports	7301 World Way West, 1st Floor	Los Angeles, CA 90045

*I-110 Flyover Project*

Agency/Public/ Elected Official	Name	Affiliation	Address	City, State, Zip Code
Agency	Planning and Construction Division	City of Los Angeles Dept of Recreation and Parks	221 N Figueroa St, Ste 1550	Los Angeles, CA 90012
Agency		City of Los Angeles Chamber of Commerce	350 S. Bixel Street	Los Angeles, CA 90017
Agency		County of Los Angeles Parks/Recreation	433 S. Vermont Ave	Los Angeles, CA 90020
Agency		California Department of Toxic Substances Control	1449 W. Temple St. Room 105	Los Angeles, CA 90026-5698
Agency		United States Forest Service	1400 Independence Ave, SW	Washington DC 20250
Agency		Los Angeles County Dept of Public Health	313 N. Figueroa St. Room 806	Los Angeles, CA 90012
Agency	Lambert Giessinger	City of Los Angeles Office of Historic Resources	200 N. Spring Street Room 559	Los Angeles, CA 90012
Public		South Central Los Angeles Regional Center	2500 S Western Ave	Los Angeles, CA 90018
Public	Marianne Kim	Automobile Club Southern California	3333 Fairview Rd, MS A-131	Costa Mesa, CA 92626
Public		Southern California Edison	PO Box 800	Rosemead, CA 91770
Public	Dorothy Kieu Le	Los Angeles County Bicycle Coalition	634 S Spring St, Suite 821	Los Angeles, CA 90014
Public		Exposition Construction Authority	707 Wilshire Blvd, 34th floor	Los Angeles, CA 90017
Public		Los Angeles Orthopedic Hospital Foundation	2400 S Flower St	Los Angeles, CA 90007
Public	Damien Goodman	Citizen's Campaign to Fix Expo	PO Box 781267	Los Angeles CA 90016
Public		Los Angeles Neighborhood Initiative	800 S Figueroa St, Ste. 970	Los Angeles CA 90017
Public		Coalition for Responsible Community Development	3101 S Grand Ave	Los Angeles CA 90007
Public	Benjamin Torres	Community Development Tech Center	520 W 23rd St	Los Angeles, CA 90007
Public	Adela Barajas	L.A.U.R.A.	4514 Long Beach Ave.	Los Angeles CA 90058
Public	Saundra Bryant	All People's Christian Church	822 E 20th St	Los Angeles CA 90011
Public	Sandra McNeill	Figueroa Corridor Community Land Trust	152 W32nd St	Los Angeles CA 90007
Public	Vivian Bowers	Bowers and Sons Cleaners	2509 S Central Ave	Los Angeles CA 90011
Public	David Abel	Metro Investment Report	811 W Seventh St, Ste. 900	Los Angeles, CA 90017
Public		LA Mart	1933 S Broadway	Los Angeles, CA 90007
Public	The Very Reverend Canon Daniel Ade	St John's Episcopal Cathedral	514 W Adams Blvd	Los Angeles, CA 90007
Public		Carl's Jr	2912 S Figueroa St	Los Angeles, CA 90007
Public		Pasta Roma	2827 S Figueroa St	Los Angeles, CA 90007
Public		McDonald's	2810 S Figueroa St	Los Angeles, CA 90007
Public		Del Taco	2735 S Figueroa St	Los Angeles, CA 90007
Public		Domino's Pizza	2803 S Figueroa St	Los Angeles, CA 90007
Public		Goodwill	2823 S Figueroa St	Los Angeles, CA 90007

*I-110 Flyover Project*

Agency/Public/ Elected Official	Name	Affiliation	Address	City, State, Zip Code
Public		St Vincent Catholic Church	621 W Adams Blvd	Los Angeles, CA 90007
Public		Jacks N Joe	2498 S Figueroa St	Los Angeles, CA 90007
Public		Wingstop	2280 S Figueroa St	Los Angeles CA 90007
Public		The UPS Store	2202 S Figueroa St	Los Angeles CA 90007
Public		The Inn at 657	663 W 23rd St	Los Angeles, CA 90007
Public		FedEx	2723 S Figueroa St	Los Angeles, CA 90007
Public		H Claude Hudson Comprehensive Health Center	2829 S Grand Ave	Los Angeles, CA 90007
Public		Her Medical Clinic	2502 S Figueroa St	Los Angeles, CA 90007
Public	Dr. John E. Deasy	Los Angeles County Unified School District	PO Box 3307	Los Angeles, CA 90051
Public		Star Christian School	2120 Estrella Avenue	Los Angeles, CA 90007
Public		St Vincent School	2333 S Figueroa St	Los Angeles, CA 90007
Public		John Adams Middle School	151 W 30th St	Los Angeles, CA 90007
Public		Orthopedic Hospital Medical Magnet School	300 W 23rd St	Los Angeles, CA 90015
Public		Mt St Mary's College	10 Chester Place	Los Angeles, CA 90007
Public	David Roberts	University of Southern California	University Park Campus, BKS 400, MC 2432	Los Angeles CA 90089
Public	David P. Ysais	LA Trade Technical College	400 W. Washington	Los Angeles CA 90015
Public		F.D. Lanterman High School	2328 St James Place	Los Angeles, CA 90007
Public		Santee Education Complex	1921 Maple Ave	Los Angeles, CA 90011
Public		County Kids' Place	2916 S Hope St	Los Angeles CA 90007
Public		Animo Jackie Robinson High School	3500 S Hill St	Los Angeles, CA 90007
Public		New Designs Charter School	2303 Figueroa Way	Los Angeles, CA 90007
Public		Kinder Care Learning Center	2916 S Hope St	Los Angeles, CA 90007
Public		West Adams Heritage Association	2263 S Harvard Blvd	Los Angeles, CA 90018
Public	Kathy Yhip	Southern California Edison, Environmental Policy and Affairs	2244 Walnut Grove Ave	Rosemead, CA 91770
Public		Legal Aid Foundation of Los Angeles	1102 Crenshaw Blvd.	Los Angeles, CA 90019
Public		LAFCO for Los Angeles County	80 South Lake Ave Ste 870	Pasadena, CA 91101
Public		Los Angeles Alliance for a New Economy	464 Lucas Ave, Suite 202	Los Angeles, CA 90017
Public		Korean Culture Center	5505 Wilshire Blvd.	Los Angeles, CA 90036
Public	The Very Reverend Mark Kowalewski	St John's Episcopal Cathedral	514 W Adams Blvd	Los Angeles, CA 90007

*I-110 Flyover Project*

<b>Agency/Public/ Elected Official</b>	<b>Name</b>	<b>Affiliation</b>	<b>Address</b>	<b>City, State, Zip Code</b>
Public	Jean Frost	West Adams Heritage Association	2341 Scarff Street	Los Angeles, CA 90007
Public	Jim Childs	West Adams Heritage Association	2320 Scarff Street	Los Angeles, CA 90007
Public	Adrian Scott Fine	Los Angeles Conservancy	523 West 6th Street Suite # 826	Los Angeles, CA 90014
Library		Jefferson Library	2211 West Jefferson Blvd.	Los Angeles, CA 90018
Library		Vermont Square Branch Library	1201 West 48th Street	Los Angeles, CA 90037
Library		Vernon Branch Library	4504 S. Central Ave.	Los Angeles, CA 90011
Elected Official	The Honorable Dr. Ed Hernandez	California State Senator #22	100 S. Vincent Ave. Ste. 401	West Covina, CA 91790
Elected Official	The Honorable Adrin Nazarian	California State Assembly Member 46th	6150 Van Nuys Blvd Suite 300	Van Nuys, CA 91401
Elected Official	The Honorable Barbara Boxer	US Senator	501 I Street, Suite 7-600	Sacramento, CA 95814-7308
Elected Official	The Honorable Dianne Feinstein	US Senator	11111 Santa Monica Blvd. Suite 915	Los Angeles, CA 90025-3343
Elected Official	The Honorable Pete Aguilar	US Representative, District 31	685 E. Carnegie Drive Suite 100	San Bernardino, CA 92408
Elected Official	The Honorable Ted Lieu	US Representative, District 33	5055 Wilshire Blvd. Suite 310	Los Angeles, CA 90036
Elected Official	The Honorable Eric Garcetti	Mayor (City of Los Angeles)	14410 Sylvan St. #211	Van Nuys, CA 91401
Elected Official	The Honorable Gil Cedillo	City of Los Angeles City Council Member 1st District	200 N. Spring Street Room 460	Los Angeles, CA 90012
Elected Official	The Honorable Curren D. Price, JR.	Council Member 9th District	4301 S. Central Ave	Los Angeles, CA 90011
Elected Official	The Honorable Jose Huizar	City of Los Angeles Council Member 14th District	200 N. Spring Street Rm 465	Los Angeles, CA 90012
Elected Official	The Honorable Hilda Solis	Board of Supervisors, 1st District	Kenneth Hahn Hall of Administration 500 West Temple St.	Los Angeles, CA 90012
Elected Official	The Honorable Mark Ridley –Thomas	Supervisor, 2nd District	500 West Temple Street Room 866	Los Angeles, CA 90012
Elected Official	The Honorable Xavier Becerra	U.S. House of Representatives, 34 <sup>th</sup> District	350 South Bixel Street Suite 120	Los Angeles, CA 90017
Elected Official	The Honorable Kevin de Leon	California State Senator	1808 West Sunset Blvd.	Los Angeles, CA 90026

*I-110 Flyover Project*

<b>Agency/Public/ Elected Official</b>	<b>Name</b>	<b>Affiliation</b>	<b>Address</b>	<b>City, State, Zip Code</b>
Elected Official	The Honorable Miguel Santiago	State Assembly Member	320 West 4 <sup>th</sup> Street Room 1050	Los Angeles, CA 90013

## **Appendix A California Environmental Quality Act Checklist**

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**07-LA-110**

Dist.-Co.-Rte.

**20.10/20.92**

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**27800**

E.A.

This checklist identifies physical, biological, social and economic factors that might be affected by the proposed project. In many cases, background studies performed in connection with the projects indicate no impacts. A NO IMPACT answer in the last column reflects this determination. Where there is a need for clarifying discussion, the discussion is included either following the applicable section of the checklist or is within the body of the environmental document itself. The words "significant" and "significance" used throughout the following checklist are related to CEQA, not NEPA, impacts. The questions in this form are intended to encourage the thoughtful assessment of impacts and do not represent thresholds of significance.

## *I-110 Flyover Project*

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
<b>I. AESTHETICS:</b> Would the project:				
a) Have a substantial adverse effect on a scenic vista	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
 <b>II. AGRICULTURE AND FOREST RESOURCES:</b> In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment Project; and the forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>



## I-110 Flyover Project

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
<b>III. AIR QUALITY:</b> Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non- attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>IV. BIOLOGICAL RESOURCES:</b> Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

## *I-110 Flyover Project*

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

### **V. CULTURAL RESOURCES:** Would the project:

a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

### **VI. GEOLOGY AND SOILS:** Would the project:

a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

## *I-110 Flyover Project*

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

### **VII. GREENHOUSE GAS EMISSIONS:** Would the project:

- a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?
- b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

An assessment of the greenhouse gas emissions and climate change is included in the body of environmental document. While Caltrans has included this good faith effort in order to provide the public and decision-makers as much information as possible about the project, it is Caltrans determination that in the absence of further regulatory or scientific information related to GHG emissions and CEQA significance, it is too speculative to make a significance determination regarding the project's direct and indirect impact with respect to climate change. Caltrans does remain firmly committed to implementing measures to help reduce the potential effects of the project. These measures are outlined in the body of the environmental document.

### **VIII. HAZARDS AND HAZARDOUS MATERIALS:** Would the project:

- a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?
- b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?
- c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

## *I-110 Flyover Project*

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

### **IX. HYDROLOGY AND WATER QUALITY:** Would the project:

a) Violate any water quality standards or waste discharge requirements?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Otherwise substantially degrade water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

## *I-110 Flyover Project*

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
j) Inundation by seiche, tsunami, or mudflow	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

### **X. LAND USE AND PLANNING:** Would the project:

a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

***If the No-Build Alternative is chosen, than mitigation measure CONS-1 will be required.***

c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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### **XI. MINERAL RESOURCES:** Would the project:

a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

### **XII. NOISE:** Would the project result in:

a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

## *I-110 Flyover Project*

c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

### **XIII. POPULATION AND HOUSING:** Would the project:

a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

### **XIV. PUBLIC SERVICES:**

a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

## *I-110 Flyover Project*

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
<b>XV. RECREATION:</b>				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
 <b>XVI. TRANSPORTATION/TRAFFIC:</b> Would the project:				
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Conflict with adopted policies, plans or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
 <b>XVII. UTILITIES AND SERVICE SYSTEMS:</b> Would the project:				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Comply with federal, state, and local statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

### **XVIII. MANDATORY FINDINGS OF SIGNIFICANCE**

a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



## **Appendix B Resources Evaluated Relative to the Requirements of Section 4(f)**

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This section of the document discusses parks, recreational facilities, wildlife refuges and historic properties found within or adjacent to the project area that do not trigger Section 4(f) protection either because: 1) they are not publicly owned, 2) they are not open to the public, 3) they are not eligible historic properties, 4) the project does not permanently use the property and does not hinder the preservation of the property, or 5) the proximity impacts do not result in constructive use.

No parks, recreational facilities, or wildlife refuges within or adjacent to the project area will be impacted permanently or temporarily as a result of the proposed Build Alternative. Further, the Historical Property Survey Report prepared for the project concluded that there is an adverse effect on Historical Properties within the project vicinity. Specifically a visual intrusion (under Section 106 Compliance), but a Memorandum of Agreement (MOA) will be prepared in consultation with the State Historic Preservation Officer and after the avoidance, minimization, and/or mitigation measures are implemented the visual intrusion will be less than significant. In other words, the proximity impacts do not result in constructive use. Therefore, the provisions of Section 4(f) are not triggered.

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## Appendix C Title VI Policy Statement

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STATE OF CALIFORNIA—BUSINESS, TRANSPORTATION AND HOUSING AGENCY

EDMUND G. BROWN Jr., Governor

### DEPARTMENT OF TRANSPORTATION

OFFICE OF THE DIRECTOR  
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March 2013

### NON-DISCRIMINATION POLICY STATEMENT

The California Department of Transportation, under Title VI of the Civil Rights Act of 1964 and related statutes, ensures that no person in the State of California shall, on the grounds of race, color, national origin, sex, disability, religion, sexual orientation, or age, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity it administers.

For information or guidance on how to file a complaint based on the grounds of race, color, national origin, sex, disability, religion, sexual orientation, or age, please visit the following web page: [http://www.dot.ca.gov/hq/bep/title\\_vi/t6\\_violated.htm](http://www.dot.ca.gov/hq/bep/title_vi/t6_violated.htm).

Additionally, if you need this information in an alternate format, such as in Braille or in a language other than English, please contact the California Department of Transportation, Office of Business and Economic Opportunity, 1823 14<sup>th</sup> Street, MS-79, Sacramento, CA 95811. Telephone: (916) 324-0449, TTY: 711, or via Fax: (916) 324-1949.

A handwritten signature in blue ink, reading "Malcolm Dougherty".

MALCOLM DOUGHERTY  
Director

*"Caltrans improves mobility across California"*

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## Appendix D Avoidance, Minimization, and/or Mitigation Measures (Environmental Commitment Record)

Environmental Commitment	Responsible Branch/Staff	Timing/Phase
<b>Mitigation P&amp;B-1:</b> Re-design Figueroa Way to encourage pedestrian and bicycle use. This may include upgrading sidewalks, improving lighting, landscaping, adding a bike pathway or lane on Figueroa Way, and signage to ensure the safety of pedestrians, bicyclists, and persons with disabilities that use Figueroa Way as a short cut to access the surrounding community.	Design/Landscape/Cultural Resources	Design Stage
<b>Minimization BUS-1:</b> The Metro Silver Line bus stop on Figueroa Way will be consolidated with the currently existing bus stop on Figueroa Street and 23 <sup>rd</sup> Street. Therefore, bus service will still be available.	Metro	Construction

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Environmental Commitment	Responsible Branch/Staff	Timing/Phase
<p><b>Minimization T-1:</b> A TMP will be implemented to minimize direct and cumulative construction impacts on the community. The TMP shall be developed in consultation with the Los Angeles Department of Transportation and the California Department of Transportation, and it shall be provided with the construction plan to the City of Los Angeles Police Department and the City of Los Angeles Fire Department prior to commencement of construction activities. The TMP shall include the following implementation plans:  Public Information: Provide project updates to affected residents and businesses, including the general public, via brochures and mailers, community meetings, and web site information.  Motorist Information: Provide project information using changeable message signs and ground-mounted signs.  Incident Management: Implement construction zone enhanced enforcement program, freeway service patrol, and California Highway Patrol traffic handling.  Traffic Management during Construction: Provide a traffic lane closure chart, detour routes, pedestrian routes, residential and commercial access routes, and temporary traffic signals during construction.  Following Policies and Guidelines during Construction: Construction activities would be conducted in accordance with Caltrans guidelines.</p>	Traffic Operations	<p>Preparation: Pre-Construction</p> <p>Implementation: Construction</p>
<p><b>Mitigation CR-1:</b> Develop an interpretive program that summarizes the history of West Adams, including street signage that would be compatible with the My Figueroa Project, panels, exhibits, and/or educational materials, as appropriate to the historic property</p>	Cultural Resources Unit	<p>Preparation: Pre-Construction</p> <p>Implementation: Construction</p>
<p><b>Mitigation CR-2:</b> Design and fabricate a mobile exhibit that summarizes the history of West Adams, including St. John's Episcopal Church, that could be used by the City of Los Angeles for display at appropriate citizen meetings associated with the City's upcoming planning process for the My Figueroa Project</p>	Cultural Resources Unit	<p>Preparation: Pre-Construction</p> <p>Implementation: Construction</p>

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<b>Environmental Commitment</b>	<b>Responsible Branch/Staff</b>	<b>Timing/Phase</b>
<b>Mitigation CR-3:</b> Design and implement a historically sensitive and pedestrian friendly streetscape on Figueroa Way that includes landscaping and lighting that embraces the unique West Adams community and reflects the goals of the My Figueroa Project to ensure that the proposed Build Alternative is consistent with the surrounding community.	Design/Landscape/Cultural Resources	Design Stage/Construction
<b>Mitigation CR-4:</b> Prepare a Historic Structures Report/Preservation Plan to guide future preservation of the St. John's Episcopal Church. A Historic Structures Report/Preservation Plan provide a valuable foundation for the rehabilitation, restoration, stabilization or reconstruction of a historic building. The document summarizes the history of the construction, alterations, owners, and significant events at the property in order to informed management or development decisions and understand the effects of those decisions on the property's historic fabric and guides a plan of action for future work on the building.	Cultural Resources	Preparation: Pre-Construction Implementation: Construction
<b>Avoidance CR-5:</b> If cultural materials are discovered during construction, all earth-moving activity within and around the immediate discovery area will be diverted until a qualified archaeologist can assess the nature and significance of the find.	Cultural Resources	Construction
<b>Minimization WQ-1:</b> Storm drain inlet protection will be deployed throughout the project and the roadway should be swept regularly to minimize dirt and dust.	Resident Engineer	Construction
<b>Minimization WQ-2:</b> Concrete wastes will be managed through the use of concrete washout facilities.	Resident Engineer	Construction
<b>Minimization WQ-3:</b> Temporary silt fence shall be utilized to protect existing vegetation. Location of the temporary fencing shall be shown on the project plans.	Resident Engineer	Construction
<b>Minimization WQ-4:</b> Various waste management, materials handling, and other	Resident Engineer	Construction

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<b>Environmental Commitment</b>	<b>Responsible Branch/Staff</b>	<b>Timing/Phase</b>
housekeeping BMPs will be used throughout the duration of the project.		
<b>Minimization WQ-5:</b> Construction sequencing will be scheduled to minimize storm water quality impacts.	Resident Engineer	Construction
<b>Minimization WQ-6:</b> A Water Pollution Control Plan will be prepared and implemented during the construction stage.	Resident Engineer	Construction
<b>Minimization WQ-7:</b> Comply with the provisions of the National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Order No. 2009-0009-DWQ, NPDES No. CAS000002) (i.e. Construction General Permit).	Resident Engineer	Construction
<b>Minimization WQ-8:</b> Comply with the provisions identified in the NPDES Statewide Storm Water Permit Waste Discharge Requirements for the State of California, Department of Transportation (Order No. 2012-0011-DWQ, NPDES No. CAS000003).	Resident Engineer	Construction
<b>Minimization GT-1:</b> If the build alternative is selected, a site-specific geotechnical investigation shall be conducted prior to the detailed design phase. This investigation will determine the depth of the existing groundwater and provide recommendations for avoidance, minimization, and/or mitigation measures, if any, as appropriate.	Geotechnical Unit	Design



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<b>Environmental Commitment</b>	<b>Responsible Branch/Staff</b>	<b>Timing/Phase</b>
<b>Avoidance PALEO-1:</b> If during construction paleontological resources are discovered, a qualified paleontologist, will need to recover them. Construction work will be halted or diverted to allow recovery of fossil remains in a timely manner. Fossil remains will be collected, evaluated and deposited in a scientific institution such as the Los Angeles Natural History Museum as a donation.	Resident Engineer /Paleontology Unit	Construction
<b>Minimization HW-1:</b> An Asbestos Containing Material (ACM) Survey will be performed by a certified Asbestos Consultant (CAC) and Certified Lead Inspector (CLI). This allow the contractor to apply for a National Emission Standards for Hazardous Air Pollutants (NESHAP) notification/permit with South Coast Air Quality Management (SCAQMD) prior to bridge demolition work.	Resident Engineer	Pre-Construction
<b>Minimization HW-2:</b> The development of a project-specific Lead Compliance Plan (LCP) and training program to ensure proper health and safety measures are implemented and complied prior to start of the removal operation will be required. Per Caltrans Standard Special Provisions (SSPs) a project-specific Lead Compliance Plan will be required prior to the minor soil disturbance, major soil disturbance (requires LCP and Excavation and Transportation Plan (ETP), removal of existing Yellow/White Thermoplastic Traffic Stripe and pavement marking (requires LCP and Debris Removal, Containment, and Disposal Work Plan), and non-aerially deposited lead soil disturbance (requires a Health and Safety Plan (HaSP) and a Hazardous Material/Waste Management Plan (HMP) at the project site.	Resident Engineer	Pre-Construction
<b>Minimization HW-3:</b> A TWW disposal health and safety plan will be prepared.	Resident Engineer	Pre-Construction
<b>Minimization HW-4:</b> A Debris Containment and Disposal Work Plan will be prepared.	Resident Engineer	Pre-Construction

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<b>Environmental Commitment</b>	<b>Responsible Branch/Staff</b>	<b>Timing/Phase</b>
<b>Minimization HW-5:</b> Removal of yellow/white thermoplastic traffic stripes and pavement marking material shall be properly collected, stored, transported, and disposed of in accordance with State and Federal guidelines.	Resident Engineer	Construction
<b>Minimization HW-6:</b> If the proposed Build Alternative is selected, then a Phase I Environmental Site Assessment (ESA) and a Phase II Site Investigation (SI) will be prepared. The Phase II Site Investigation will be performed on existing corridor and new parcels to be acquired for the project. The purpose of the ESA is to recognize environmental conditions in connection with the parcels. The Phase II Site Investigation will evaluate and determine the extent/degree of contaminations on the Parcels prior to acquisition. The objective of the Site Investigation is to characterize/evaluate both soil and groundwater condition.	Hazardous Waste Unit	Design Stage
<b>Avoidance HW-7:</b> A comprehensive ADL site investigation will be performed in Plans Specifications and Estimates phase of the project in order to evaluate the extent of ADL contamination and to assist in evaluation of applicable ADL soil management during construction.	Hazardous Waste Unit	Design Stage
<b>Minimization AQ-1:</b> Compliance with Caltrans' Standard Specifications in Section 14 (2010) will be required.	Resident Engineer	Construction
<b>Minimization AQ-2:</b> Section 14-9.01 specifically requires compliance with all applicable laws and regulations related to air quality, including SCAQMD rules and regulations and local ordinances.	Resident Engineer	Construction
<b>Minimization AQ-3:</b> Section 14-9.02 is directed at controlling dust. If dust palliative materials other than water are to be used, material specifications are contained in Section 18.	Resident Engineer	Construction

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<b>Environmental Commitment</b>	<b>Responsible Branch/Staff</b>	<b>Timing/Phase</b>
<b>Minimization AQ-4:</b> Apply water or dust palliative to the site and equipment as frequently as necessary to control fugitive dust emissions. Fugitive emissions generally must meet a “no visible dust” criterion either at the point of emission or at the right of way line as required by the SCAQMD.	Resident Engineer	Construction
<b>Minimization AQ-5:</b> Spread soil binder on any unpaved roads used for construction purposes, and all project construction parking areas.	Resident Engineer	Construction
<b>Minimization AQ-6:</b> Wash off trucks as they leave the R/W as necessary to control fugitive dust emissions.	Resident Engineer	Construction
<b>Minimization AQ-7:</b> Properly tune and maintain construction equipment and vehicles. Use low-sulfur fuel in all construction equipment as provided in California Code of Regulations Title 17, Section 93114.	Resident Engineer	Construction
<b>Minimization AQ-8:</b> Develop a dust control plan documenting sprinkling, temporary paving, speed limits, and expedited re-vegetation of disturbed slopes as needed to minimize construction impacts to existing communities.	Resident Engineer	Pre-Construction
<b>Minimization AQ-9:</b> Locate equipment and materials storage sites at least 500 feet from the sensitive receptors. Keep construction areas clean and orderly.	Resident Engineer	Construction

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<b>Environmental Commitment</b>	<b>Responsible Branch/Staff</b>	<b>Timing/Phase</b>
<b>Minimization AQ-10:</b> Establish environmentally sensitive areas (ESAs) or their equivalent at least 500 feet away from sensitive air receptors within which construction activities such as extended idling, material storage, and equipment maintenance, would be prohibited, to the extent feasible.	Design/Resident Engineer	Design/Construction
<b>Minimization AQ-11:</b> Use track-out reduction measures such as gravel pads at project access points to minimize dust and mud deposits on roads affected by construction traffic.	Resident Engineer	Construction
<b>Minimization AQ-12:</b> Cover all transported loads of soils and wet materials prior to transport, or provide adequate freeboard (space from the top of the material to the top of the truck) to minimize emission of dust (particulate matter) during transportation.	Resident Engineer	Construction
<b>Minimization AQ-13:</b> Promptly and regularly remove dust and mud that are deposited on paved, public roads due to construction activity and traffic to decrease particulate matter.	Resident Engineer	Construction
<b>Minimization AQ-14:</b> Route and schedule construction traffic to avoid peak travel times as much as possible, to reduce congestion and related air quality impacts caused by idling vehicles along local roads.	Resident Engineer	Construction
<b>Minimization AQ-15:</b> Install mulch or plant vegetation as soon as practical after grading to reduce windblown particulates in the area. Be aware that certain methods of mulch placement, such as straw blowing, may themselves cause dust and visible emission issues, and may need to use controls such as dampened straw.	Design/Landscape/Resident Engineer	Design and Construction

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Environmental Commitment	Responsible Branch/Staff	Timing/Phase
<p><b>Minimization AQ-16:</b> While unlikely, if naturally occurring asbestos, serpentine, or ultramafic rock is discovered during grading operations, Section 93105, Title 17 of the California Code of Regulations requires notification to the SCAQMD by the next business day and implementation of the following measures within 24-hours:</p> <ul style="list-style-type: none"> <li>• Unpaved areas subject to vehicle traffic must be stabilized by being kept adequately wetted, treated with a chemical dust suppressant, or covered with material that contains less than 0.25 percent asbestos;</li> <li>• The speed of any vehicles and equipment traveling across unpaved areas must be no more than fifteen (15) miles per hour unless the road surface and surrounding area is sufficiently stabilized to prevent vehicles and equipment traveling more than 15 miles per hour from emitting dust that is visible crossing the project boundaries;</li> <li>• Storage piles and disturbed areas not subject to vehicular traffic must be stabilized by being kept adequately wetted, treated with a chemical dust suppressant, or covered with material that contains less than 0.25 percent asbestos; and</li> <li>• Activities must be conducted so that no track-out from any road construction project is visible on any paved roadway open to the public.</li> </ul>	Resident Engineer	Construction

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Environmental Commitment	Responsible Branch/Staff	Timing/Phase
<p><b>Avoidance N-1:</b> Equipment Noise Control will be applied to revising old equipment and designing new equipment to meet acceptable noise levels.</p> <ul style="list-style-type: none"> <li>• Mufflers are very effective devices which reduce the noise emanating from the intake or exhaust of an engine, compressor, or pump. The fitting of effective mufflers on all new equipment and retrofitting of mufflers on existing equipment is necessary to yield an immediate noise reduction at all types of road construction sites.</li> <li>• Sealed and lubricated tracks for crawler mounted equipment will lessen the sound radiated from the track assembly resulting from metal to soil and metal to metal contact. Contractors, site engineers, and inspectors should ensure that the tracks are kept in excellent condition by periodic maintenance and lubrication.</li> <li>• Lowering exhaust pipe exit height closer to the ground can result in an off-site noise reduction. Barriers are more effective in attenuating noise when the noise source is closer to ground level.</li> <li>• General noise control technology can have substantially quieter construction equipment when manufacturers apply state-of-the-art technology to new equipment or repair old equipment to maintain original equipment noise levels.</li> </ul>	Resident Engineer	Construction
<p><b>Minimization N-2:</b> In-Use Noise Control where existing equipment is not permitted to produce noise levels in excess of specified limits.</p> <p>Any equipment that produces noise levels less than the specified limits would not be affected. However, those exceeding the limit would be required to meet compliance by repair, retrofit, or replacement. New equipment with the latest noise sensitive components and noise control devices are generally quieter than older equipment, if properly maintained and inspected regularly. They should be repaired or replaced if necessary to maintain the in-use noise limit. All equipment applying the in use noise limit would achieve an immediate noise reduction if properly enforced.</p>	Resident Engineer	Construction

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Environmental Commitment	Responsible Branch/Staff	Timing/Phase
<p><b>Minimization N-3:</b> Site Restrictions is an attempt to achieve noise reduction through modifying the time, place, or method of operation of a particular source. Site restrictions should be applied to achieve noise reduction through different methods, resulting in an immediate reduction of noise emitted to the community without requiring any modification to the source noise emissions. The methods include shielding with barriers for equipment and site, truck rerouting and traffic control, time scheduling, and equipment relocation. The effectiveness of each method depends on the type of construction involved and the site characteristics.</p> <p>Shielding with barriers should be implemented at an early stage of a project to reduce construction equipment noise. The placement of barriers must be carefully considered to reduce limitation of site access. Barriers may be natural or man-made, such as excess land fill used as a temporary berm strategically placed to act as a barrier.</p> <ul style="list-style-type: none"> <li>• Efficient rerouting of trucks and control of traffic activity on construction site will reduce noise due to vehicle idling, gear shifting and accelerating under load. Planning proper traffic control will result in efficient workflow and reduce noise levels. In addition, rerouting trucks does not reduce noise levels but transfers noise to other areas that are less sensitive to noise.</li> <li>• Time scheduling of activities should be implemented to minimize noise impact on exposed areas. Local activity patterns and surrounding land uses must be considered in establishing site curfews. However, limiting working hours can decrease productivity. Sequencing the use of equipment with relatively low noise levels versus with relatively high noise levels during noise sensitive periods is an effective noise control measure.</li> <li>• Equipment location should be as far from noise sensitive land use areas as possible. The contractor should substitute quieter equipment or use quieter construction processes at or near noise sensitive areas.</li> </ul>	Resident Engineer	Construction

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Environmental Commitment	Responsible Branch/Staff	Timing/Phase
<p><b>Minimization N-4:</b> Personal Training of operators and supervisors is needed to become more aware of the construction site noise problems. Educating contractors and their employees to be sensitive to noise impact problems and noise control methods. This may be one of the most cost-effective ways to help operators and supervisors become more aware of the construction site noise problem and to implement the various methods of improving the conditions. A training program for equipment operators is recommended to instruct them in methods of operating their equipment to minimize environmental noise. Many training programs are presently given on the subject of job safety. This can be extended to include the impact due to noise and of abatement.</p>	Resident Engineer	Pre-Construction
<p><b>Minimization GV-1:</b> As recommended in the Noise and Vibration Manual (September, 2013), impact pile driving can be the most significant source of vibration at construction sites. The principal means of reducing vibration from impact pile driving that will most likely be used in this case will be cast-in-place or auger cast piles. This technique eliminates impact driving and limits vibration generation to the small amount generated by drilling, which is negligible.</p>	Resident Engineer	Construction
<p><b>Avoidance BIO-1:</b> Avoid construction during bird nesting season, or at a minimum grub the vegetation outside the bird nesting season <u>March 1<sup>st</sup> through September 1<sup>st</sup></u>. If this cannot be done, then a biological survey for nesting birds will be required no more than 5 days in advance of grubbing. Further, if any bird nests are found, then a buffer of 150 feet for songbirds and 500 feet for raptors will be required until the nestlings have fledged. Per the federal Migratory Bird Treaty Act.</p>	Resident Engineer	Pre-Construction and Construction



## Appendix E List of Acronyms

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### A

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**AB:** Assembly Bill  
**ACHP:** Advisory Council on Historic Preservation  
**ADA:** Americans with Disabilities Act  
**ADL:** aerially deposited lead  
**ADT:** average daily traffic  
**AE:** Adverse Effect  
**AHERA:** Asbestos Hazard Emergency Response Act  
**AIRFA:** American Indian Religious Freedom Act  
**APCD:** Air Pollution Control District  
**APE:** Area of Potential Effects  
**AQMD:** Air Quality Management District  
**ARB:** Air Resources Board  
**ARPA:** Archaeological Resources Protection Act of 1979  
**ASR:** Archaeological Survey Report  
**ASTM:** American Society for Testing Materials  
**ATCM:** Airborne Toxic Control Measure  
**AVO:** Average Vehicle Occupancy

### B

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**BA:** Biological Assessment  
**BFE:** Base Flood Elevation  
**BIA:** Bureau of Indian Affairs  
**BLM:** Bureau of Land Management  
**BMP:** Best Management Practice  
**BTU:** British thermal unit

### C

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**CAA:** Clean Air Act  
**CCAA:** California Clean Air Act  
**CCC:** California Conservation Corps

**CCR:** California Code of Regulations  
**CDFW:** California Department of Fish and Wildlife  
**CEQ:** Council on Environmental Quality  
**CEQA:** California Environmental Quality Act  
**CERLA:** Comprehensive Environmental Response, Compensation, and Liability Act  
**CESA:** California Endangered Species Act  
**CFR:** Code of Federal Regulations  
**CGS:** California Geological Survey  
**CHRIS:** California Historical Resources Information System  
**CIA:** Community Impact Assessment  
**CIDH:** cast-in-drilled-hole  
**CL:** center line  
**CMP:** Conceptual Mitigation Plan  
**CNEL:** community noise equivalent level  
**CNPS:** California Native Plant Society  
**CO:** carbon monoxide  
**CO<sub>2</sub>:** carbon dioxide  
**COG:** Council of Governments  
**CRHR:** California Register of Historical Resources  
**CRM:** Cultural Resources Management  
**CSO:** Cultural Studies Office  
**Caltrans/ CT:** California Department of Transportation  
**CTC:** California Transportation Commission  
**CTP:** California Transportation Plan  
**CWA:** Clean Water Act

### D

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**dBA:** A-weighted decibel  
**dBA Leq:** A-weighted noise level  
**DED:** draft environmental document

## *I-110 Flyover Project*

**DES-OE:** Division of Engineering Services-Office Engineer

**DNAC:** District Native American Coordinator

**DOC:** California Department of Conservation

**DOI:** Department of the Interior [U.S.]

**DOT:** Department of Transportation [general]

**DPR:** Draft Project Report

**DPR:** California Department of Parks and Recreation

**DSA:** Disturbed Soil Area

**DSI:** Detailed Site Investigation

**DTSC:** California Department of Toxic Substances Control

**DWR:** California Department of Water Resources

### **E**

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**EA:** Environmental Assessment [NEPA]

**EA:** Expenditure Authorization

**EBC:** Environmental Branch Chief

**ECR:** Environmental Commitments Record

**ED:** environmental document

**EFH:** Essential Fish Habitat

**EJ:** Environmental Justice

**EO:** Executive Order

**ESA:** Environmentally Sensitive Area

**ESA:** Endangered Species Act

### **F**

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**FAE:** Finding of Adverse Effect

**FED:** final environmental document

**FESA:** Federal Endangered Species Act

**FHWA:** Federal Highway Administration

**FNAE:** Finding of No Adverse Effect

**FOE:** Finding of Effect

**FOIA:** Freedom of Information Act

**FONSI:** Finding of No Significant Impact [NEPA]

**FPPA:** Farmland Protection Policy Act

**FR:** Federal Register

**FTA:** Federal Transit Authority

**FSTIP:** Federal State Transportation Improvement Program

**FTIP:** Federal Transportation Improvement Program

### **G**

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**GHG:** greenhouse gas

### **H**

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**HASR:** Historic Architectural Survey Report

**HCM:** Highway Capacity Manual

**HCP:** Habitat Conservation Plan

**HDM:** Highway Design Manual

**HMDD-A:** Hazardous Materials Disclosure Document-Acquisition

**HMDD-D:** Hazardous Materials Disclosure Document-Disposal

**HOT:** High-Occupancy Toll

**HOV:** High-Occupancy Vehicle

**HPSR:** Historic Property Survey Report

**HRCR:** Historical Resources Compliance Report

**HRER:** Historical Resources Evaluation Report

**HSWA:** Hazardous and Solid Waste Amendments

### **I**

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**IS:** Initial Study [CEQA]

**ISA:** Initial Site Assessment

### **J**

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**JD:** Jurisdictional Determination

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**K**

**KP:** kilometer post

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**L**

**LEDPA:** Least Environmentally Damaging Practicable Alternative

**LOS:** Level of Service

**LUST:** leaking underground storage tank

**LWCFA:** Land and Water Conservation Fund Act of 1965

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**M**

**MBTA:** Migratory Bird Treaty Act

**MCCE:** Mitigation and Compliance Cost Estimate

**MND:** Mitigated Negative Declaration [CEQA]

**MSAT:** Mobile Source Air Toxics

**MTP:** Metropolitan Transportation Plan

**MTIP:** Metropolitan Transportation Improvement Program

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**N**

**NAAQS:** National Ambient Air Quality Standards

**NAC:** Noise Abatement Criteria

**NADR:** Noise Abatement Decision Report

**NAE:** No Adverse Effect

**NAGPRA:** Native American Graves Protection and Repatriation Act of 1990

**NAHC:** Native American Heritage Commission

**ND:** Negative Declaration [CEQA]

**NEPA:** National Environmental Policy Act

**NES:** Natural Environment Study

**NES-MI:** Natural Environmental Study (Minimal Impact)

**NESHAP:** National Emissions Standards for Hazardous Air Pollutants

**NHL:** National Historic Landmark

**NHPA:** National Historic Preservation Act

**NOA:** naturally occurring asbestos

**NOC:** Notice of Completion

**NOD:** Notice of Determination

**NOE:** Notice of Exemption

**NOI:** Notice of Intent

**NOP:** Notice of Preparation

**NOx:** nitrogen oxide

**NPDES:** National Pollutant Discharge Elimination System

**NPL:** National Priorities List

**NR:** National Register [of Historic Places]

**NRHP:** National Register of Historic Places

**NSSP:** Nonstandard Special Provision

**NWP:** Nationwide Permit

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**O**

**O.C.:** Overcrossing

**OHP:** [California] Office of Historic Preservation

**OPR:** [California] Office of Planning and Research

**OSHA:** Occupational Safety Hazard Administration

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**P**

**PA&ED:** Project Approval and Environmental Document

**PAM:** Permits, Agreements, and Mitigation

**Pb:** lead

**PDPM:** [Caltrans] Project Development Procedures Manual

**PDT:** Project Development Team

**PEAR:** Preliminary Environmental Assessment Report

**PM:** particulate matter

## *I-110 Flyover Project*

**PM:** post mile

**PM10:** particulate matter less than 10 microns in diameter

**PM2.5:** particulate matter less than 2.5 microns in diameter

**POAQC:** Project of Air Quality Concern

**ppb:** parts per billion

**ppm:** parts per million

**PR:** Project Report

**PRC:** [California] Public Resources Code

**PS&E:** Plans, Specifications, and Estimates

**PSI:** Preliminary Site Investigation

**PSI:** pounds per square inch

**PSR:** Project Study Report

**PSR-PDS:** Project Study Report-Project Development Support

**PUC:** Public Utilities Commission [California]

### **Q**

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### **R**

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**RE:** Resident Engineer

**RIP:** Regional Improvement Program

**ROD:** Record of Decision [NEPA]

**ROW:** right-of-way

**RP:** Responsible Party

**RTIP:** Regional Transportation Improvement Program

**RTP:** Regional Transportation Plan

**RTPA:** Regional Transportation Planning Agency

**RWQCB:** Regional Water Quality Control Board

### **S**

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**SAFETEA-LU:** Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users

**SB:** Senate Bill

**SCAG:** Southern California Association of Governments

**SCH:** [California] State Clearinghouse

**SER:** Standard Environmental Reference

**SHA:** State Highway Agency

**SHBSB:** State Historical Building Safety Board

**SHL:** State Historical Landmark

**SHOPP:** State Highway Operation and Protection Program

**SHPO:** State Historic Preservation Officer

**SHS:** State Highway System

**SI:** Safety Index

**SIP:** State Implementation Plan

**SLC:** [California] State Lands Commission

**SOC:** Statement of Overriding Considerations [CEQA]

**SOL:** Statute of Limitations

**SR:** State Route

**SSP:** Standard Special Provision

**STIP:** Statewide Transportation Improvement Program

**SWMP:** Storm Water Management Plan

**SWPPP:** Storm Water Pollution Prevention Plan

**SWRCB:** State Water Resources Control Board

### **T**

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**TIP:** Transportation Improvement Program

**TMDL:** Total Maximum Daily Load

**TMP:** Traffic Management Plan

**TSM:** Transportation Systems Management

**U**

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**U.C.:** Undercrossing

**U.S. EPA:** United States Environmental Protection Agency

**USACE:** United States Army Corps of Engineers

**USC:** United States Code

**USFWS:** United States Fish and Wildlife Service

**USGS:** United States Geological Survey

**UST:** underground storage tanks

**V**

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**V/C:** Volume/Capacity

**VMT:** Vehicle Miles of Travel

**VOC:** volatile organic compounds

**W**

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**WPCP:** Water Pollution Control Program

**X**

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**Y**

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**Z**

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## Appendix F SHPO Finding of Effect Letter

STATE OF CALIFORNIA – THE NATURAL RESOURCES AGENCY

EDMUND G. BROWN, JR., Governor

**OFFICE OF HISTORIC PRESERVATION  
DEPARTMENT OF PARKS AND RECREATION**

1725 23<sup>rd</sup> Street, Suite 100  
SACRAMENTO, CA 95816-7100  
(916) 445-7000 Fax: (916) 445-7053  
calshpo@parks.ca.gov  
www.ohp.parks.ca.gov



October 13, 2015

Reply To: FHWA\_2015\_0406\_001

Kelly Hobbs, Chief  
Section 106 Coordination Branch  
Caltrans Division of Environmental Analysis  
PO Box 942874  
Sacramento, CA 94274-0001

Re: Finding of Effect for the Proposed Interstate 110 Flyover Project, Los Angeles County, CA

Dear Mr. Hobbs:

You are consulting with me about the subject undertaking in accordance with the January 2014 *First Amended Programmatic Agreement Among the Federal Highway Administration, the Advisory Council on Historic Preservation, the California State Historic Preservation Officer, and the California Department of Transportation Regarding Compliance with Section 106 of the National Historic Preservation Act, as it Pertains to the Administration of the Federal-Aid Highway Program in California* (PA).

Caltrans, in conjunction with Los Angeles County Transportation Agency (Metro), proposes to build an elevated, northbound off-ramp on I-110 between 30<sup>th</sup> Street and the Figueroa Street Overcrossing (Postmiles 10.10/20.92). The proposed structure would bypass the intersections at Flower Street and Adams Boulevard and the North Bound I-110 High Occupancy Toll (HOT) off ramp to Adams Boulevard, connecting the HOT lane traffic to Figueroa Street. A full project description can be found on page three and four of the Finding of Effect document and a depiction of the area of potential effect (APE) can be found on pages 4-8.

Identification efforts for the project resulted in the determination that there are five historic properties located within the APE for the project.

Caltrans has found that the undertaking will have an adverse effect on St. John's Episcopal Church, located at 510-518 West Adams Boulevard in Los Angeles. The flyover has the potential to obscure views towards and from St. John's. I have **no objections** to this finding.

Caltrans has also found that the undertaking will have no adverse effect on the St. John's Parish House. Caltrans states that although the flyover would be visible from the east, south and north elevations of St. John's Parish House, the effect would not be adverse because the building was moved and reoriented on the church property shortly after it was built, and none of the views to or from the historic property are original to the building when it was originally constructed before it was moved. I object to this finding.

When the Parish House was found eligible in September of 2002, it was due to its association with the church and the architects Pierpont and Walter S. Davis. The documentation, as well as the SHPO letter, acknowledge that the Parish House is part of the church property. Given the heavy association between the Church and the Parish House and that they are located next door to each other, I think a finding of adverse effect for this property would be more appropriate.

Caltrans has also found that the undertaking will have no effect on the following properties:

- Automobile Club of Southern California – 2601 S Figueroa Street, Los Angeles
- St. Vincent de Paul Church – 601 West Adams Boulevard, Los Angeles

## *I-110 Flyover Project*

Mr. Hobbs  
October 13, 2015  
Page 2 of 2

- Thomas Stinson House, 2421 South Figueroa Street, Los Angeles

Caltrans found that there would be no direct impacts to these buildings. Although the flyover will be visible from the buildings it is Caltrans' opinion that the setting is so altered that there will be no effect to the properties. Based on my review of the submitted documentation I object to this finding. Given the visibility of the flyover from these buildings I do believe that the undertaking will have an effect, although I do not think it will be adverse due to the extensive changes that have occurred to the setting in the vicinity of these buildings.

Thank you for considering historic properties during project planning. If you have any questions, please contact Natalie Lindquist of my staff at (916) 445-7014 or email at [natalie.lindquist@parks.ca.gov](mailto:natalie.lindquist@parks.ca.gov).

Sincerely,



Julianne Polanco  
State Historic Preservation Officer



## **Appendix G List of Technical Studies and References Used**

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Air Quality Analysis Report (September 2015)

Natural Environment Study-Minimal Impacts (October 2014)

Historic Property Survey Report (April 2015)

Findings of Effect (August 2015)

Archaeological Survey Report (February 2015)

Community Impact Assessment (August 2015)

Geotechnical Study Report (April 2010)

Preliminary Hazardous Waste Assessment (November 2014)

Storm Water Data Report (July 2015)

Visual Impact Assessment (October 2014)

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